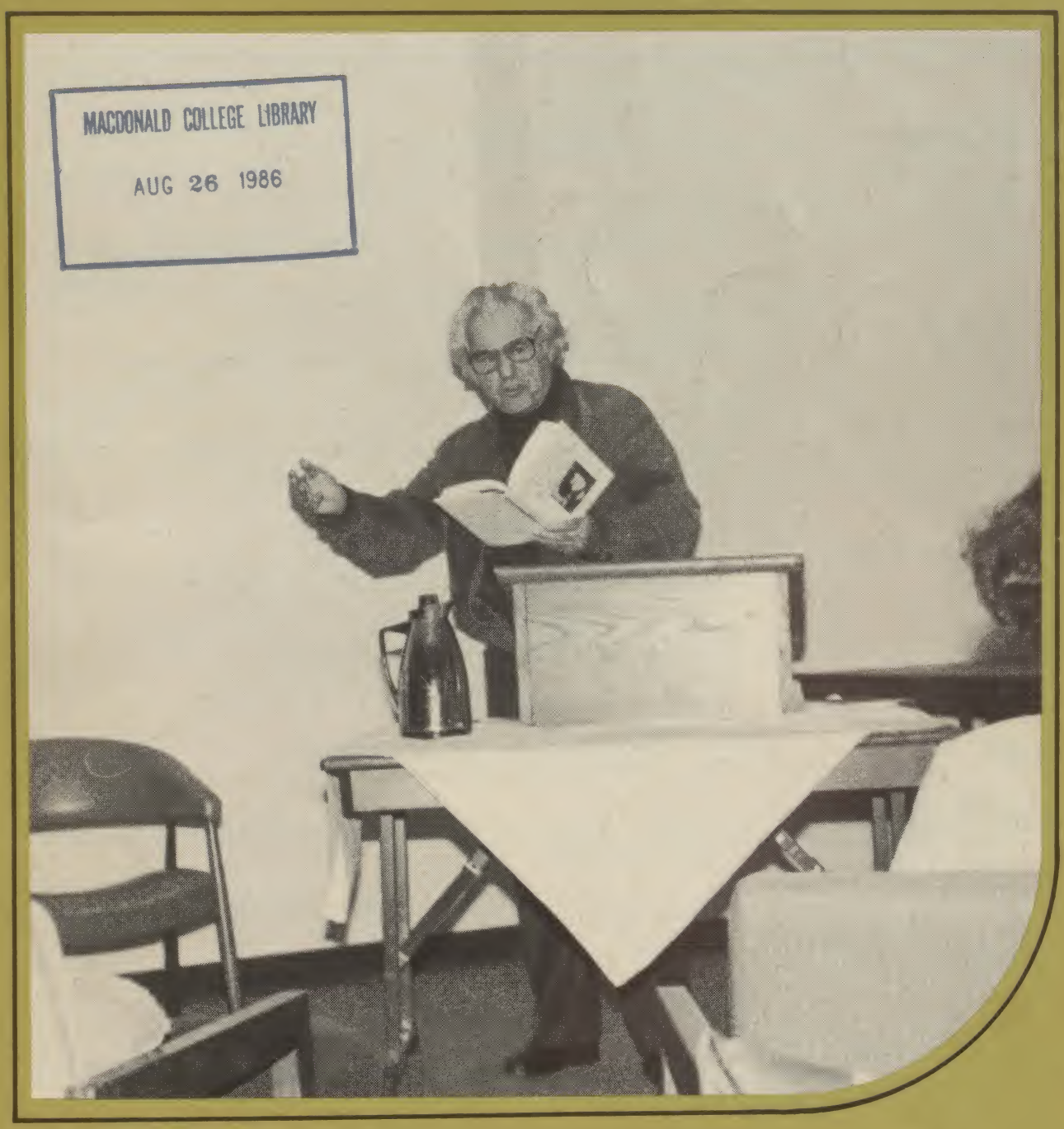
# THE MACDONALD JOURNAL

AUGUST
1986



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**This Issue**



**Features**



**Cover Story**

"...I wore ill fitting clothes, and was probably the most hated man at Mac. I was also the most talked about..." says Irving Layton, BSc (Agr) '39, in his recently published autobiography *"Waiting for the Messiah."* He is undoubtedly still one of the most talked about, but we hope that the warm welcome he received from staff and students when he returned to Macdonald last February has helped to take some of the sting out of his memories of his days on this campus. He said he was delighted to be back and told us that despite all he was proud to have been at Macdonald, to have studied agriculture, and that his love of poetry was strengthened by being here; indeed, it was strengthened by the adversity he found here. The spoken word can have a strong impact and we cannot, unfortunately, share that particular pleasure with you. We can share Irving Layton's introduction to some of his writings, the reasons for their creation, and then, in print, some of the works themselves. We thank Irving Layton and his publishers for their kind permissions to reprint some of his work. Come back again, Irving Layton.

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## WELCOME BACK TO MAC

# AN EVENING WITH IRVING LAYTON

Anna Pottier, Irving Layton, and Karen Lyn Mudie. Karen, a Consumer Science Student, invited Mr. Layton to Macdonald on behalf of the Students' Council. Photos by Hazel M. Clarke and Stuart Hackwell.

*''A wonderful evening.'' ''I was awed.'' ''He is able to capture a moment and really put feeling into it, and it shows when he reads his poetry. A very special person.''*

*The inspiration for a ''magical evening'' of reading which took place last February at Macdonald College came from Karen Lyn Mudie, a Consumer Science student and a member at large on the Students' Council. Knowing that Irving Layton is a Mac grad, BSc (Agr) '39, Karen suggested to the Students' Council that he be invited to the college. Karen did the inviting and he and his companion Anna Pottier graciously accepted. Mr. Layton also gave us permission to tape the evening's reading so that we could share this special event with Journal readers. We thank him for this courtesy and only wish space permitted us to include all the poems he read.*

*In introducing Irving Layton, Karen Lyn Mudie said: ''Ever since his tumultuous days at Macdonald College, Irving Layton has had a long, illustrious, and controversial career. To his academic credit: a Bachelor of Science degree (Agriculture) from Macdonald College, a Master of Science degree (Economics and Political Science) from McGill University, and a Doctor of Civil Laws, awarded to him by Bishop's University in 1970.*

*''Irving Layton's role in the evolution of Canadian poetry cannot be overlooked. He has won the Governor General's Award for Poetry and was nominated for the Nobel Prize for Literature in 1981. His work has dazzled, puzzled, angered, and astonished readers. He can either sling vituperation at the enemies of life or whisper a delicate admonition into a lover's ear. Layton will be Layton against all odds. He won't bother to argue with ignorance. He'll simply laugh in its face. Layton has been called an 'immoral moralist,' a label which comes very close to capturing the essence and intent of his work.*

*''Ladies and gentlemen, Mr. Irving Layton.''*

How can I express my very mixed and very confused feelings of being here this evening remembering that 50 years ago I was a student at Macdonald College. I'm glad that there are no bells going off because if a bell rang, I might leave everything and head for some classroom. One gets conditioned.

What I'm trying to convey is that time has ceased to be real for me. Maybe it happens to everyone who has this kind of experience, where you find yourself in a situation identical more or less with a situation that you had 40, 50, or 60 years ago. There's a kind of unreality and even as I talk to you I have to convince myself that this is not Irving Layton who is taking agriculture, horticulture, animal husbandry, and biochemistry. This is Irving Layton who has been advertised for this evening as a Nobel Prize nominee and all that sort of thing. There is a difficulty here so bear with me if there are signs of confusion.

I must say that I am grateful that I went to Macdonald College, because invariably I get introduced as someone who has a Bachelor of Science in Agriculture. That always causes a few raised eyebrows and a titter. What the hell has he got to do with agriculture? And then I launch into my favourite story as to how it was I came to Macdonald College in the first place.

I'd been drifting for about three years after being expelled from Baron Byng, reading a lot but not doing anything and not thinking of going anywhere. One day I was walking along a street in Montreal when someone came towards me and stood waiting for me to recognize him and I didn't. He stuck out his hand and said, "I'm Alex Avarine." That rang a bell. A school mate of my older brother, Hyman. He asked me what I was doing and I said, "Not much. I'm only just drifting." He said, "Why don't you go to university?" I said there was no way I could go to university because I couldn't raise the $150 or $200 which was the fee at that time at McGill. He said, "Why don't you go to Macdonald College? If you are student from Quebec, they pay you $9 for every month that you go to this college." I did some mental arithmetic: 7 × 9 is 63. The fees were $50. I realized I would make a profit of $13 and my mercantile instincts made the bargain irresistible. That's how I happened to go to Macdonald College.

The other thing I am grateful for is more serious. I think I am one of the very few poets in Canada, and perhaps anywhere, who has the kind of scientific background that I have. When I enumerate the courses I took — horticulture, bacteriology, biophysics, biochemistry, calculus, plant pathology, plant physiology — I don't think that any poet has taken as many sciences. I'm not saying that I was a good science student; I was not, and I regret it now because I know that I could have got a lot more if I had not been as blind or as silly or as young.

I majored in Agricultural Economics and was the first student at Mac to suggest that a student studying agricultural economics be permitted to take courses in economics at McGill. I went to McGill and took business, banking, transportation, and so on.

I owe a great debt to this college. If you know any of my work at all, you will be quite astounded to see the references that I do make to the sciences or some aspect of scientific intelligence and scientific knowledge, and I am very proud of that fact.

Before I start to read I would like to explain something. I told you that I'd been drifting. My real education happened at Horn's Cafeteria on St. Lawrence Boulevard. It's no longer there but in the 30s it was the meeting place of all the radicals of Montreal, the English-speaking radicals, anyway. Trotskyites, syndicalists, anarchists, communists, socialists, left-wing socialists, right-wing socialists, the whole spectrum. The most exciting nights at Horn's Cafeteria, where you would have a cup of coffee for five cents, were spent just arguing, arguing politics, arguing socialism versus communism, parliamentarianism versus revolution. We talked about British imperialism; should the British be in India; should they not be in India. No holds barred. You called a man a social revisionist, a fascist, and he'd cry back at you, "You're a filthy Trotskyite." You traded insults cheerfully and it made for a great evening if you could come up with an original one.

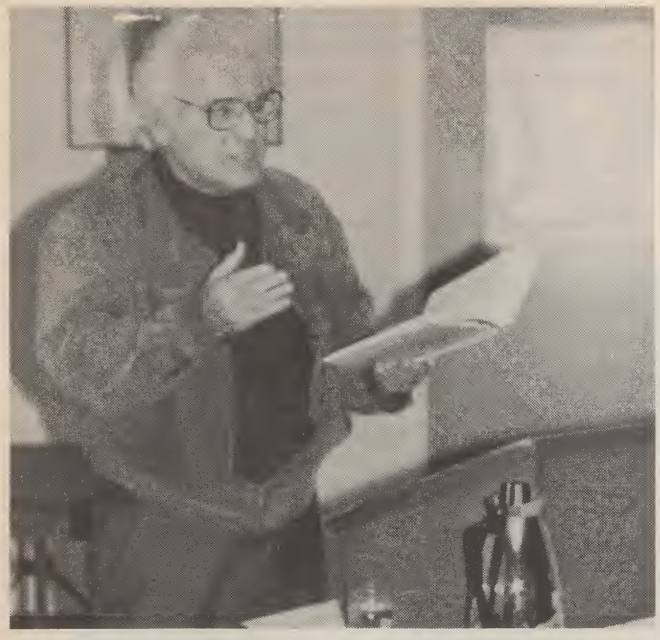
Since I was green and misinformed, I took it for granted that at the college I was going to go to there would be the most intense debates and arguments about everything: mankind, the world, life, death, politics, the whole bit. But that is not what happened. To savour once again that momemt 50 years ago, I will read from my book *"Waiting for the Messiah."*

*"I registered at Macdonald College in September 1934. My family was relieved that my life had finally taken a turn for the better. My drifting had come to an end and it seemed I was setting out on a course that promised some reward. Relieved? Yes. Proud? I don't think so. They would have been much happier had I gone ahead and become an enterprising peddlar. They did not know of the confusion in my mind, that I had no clear idea as to what I was doing at Macdonald or even why I wanted to be there. I kept my doubts and anxieties to myself.*

*"The following scenario symbolizes my years at Macdonald College. On my first day there, I went into the common room where I'd been told the students assembled after supper. I could hardly keep my hands from trembling, so great was my excitement. After having had those lively no-holds-barred debates at Horn's, my expectation was that here there would be hotter and livelier debates. After all, this was a college.*

*"There were about 15 students in the room. Some were seated, others standing; they were all very quiet. The silence surprised me. Why weren't they already engaged in debate? In five minutes at Horn's names like 'Trotskyist,' 'social fascist,' and 'revisionist' were exploding in the air like firecrackers, and here was the decorum of a cemetery. So I figured it was because there was a stranger in their midst and, out of the goodness of their hearts, they were taking it slow and easy. That they didn't want to overwhelm me with their dialectical skills, oratorical gifts. So I waited, said nothing. Felt the tears welling up — out of gratitude, you must understand, for their politeness.*

*"Many of these students were from England. Their manner, their dress and class affectations were quite pronounced. They regarded me silently, sensing I was not one of them. They certainly looked and acted very*



*differently from myself: for that matter, even very differently from the few English-Canadian students present. Well, I waited for the show to begin, wondering who was going to throw the first firecracker. But nothing happened. I finally decided to do them all a favour and break the ice.*

*"At the time, there was some unrest in India and the British were confident they knew better how to govern India than the Indians themselves. I voiced my doubts. In a firm, practised voice learned at Horn's, I said that England was making a mistake in trying to rule the Indian people against their will. I dropped the word 'imperialism.' Suddenly, I felt everyone staring at me. Their stares unnerved me. Someone asked whether I thought England should get out of India. The actual word he used was 'abandon.' His voice was politely hostile. Superior and cool, as if he were talking down to a dark-skinned native of the Indian sub-continent. The voice, with its assumed authoritativeness, irritated me. I launched into a tirade against all the black misdeeds of British imperialism, completely forgetting who my audience was.*

*"The cemetery suddenly turned into howling bedlam. I had kicked open a hornet's nest. But these hornets were wearing grey flannels and tweed jackets. Some of them were even smoking pipes. They had dropped their coolness and were now expostulating and even raising their voices. A few still held back at the fringes and continued to fix me with a supercilious stare as if to say, 'How dare a mere colonial question the wisdom of His Majesty's government?'*

*"Completely without tact or common sense, I was destined to remain an outsider for the years I was to spend at Macdonald College. I was an alien in an unfriendly environment. In the days and weeks that followed that first common-room argument, I continued my attacks on British imperialism. Later when I mocked Chamberlain's appeasement of Hitler and warned that its outcome would be war, my troubles really began. I was at once branded a Communist. I was a marked man on campus, an Ishmael glorying in his singularity and apartness. What did it matter that I was unsociable, an indifferent student, that I wore ill fitting clothes, and was probably the best hated man at Mac? I was also the most talked about. The college's single agitator, single poet, and single Jew, I was too absorbed in my messianic dreams to realize what an outlandish figure I cut among the simple-minded Canadians from Quebec's farms and middle-class homes.*

*"That first year I lived in residence. One night when I was in the swimming pool, some fourth-year students seized me and started dunking me. They kept shoving my head under water. I spluttered. My spasms of coughing grew more violent. To no avail. I felt myself growing faint and dizzy. I was beginning to take in water and my temples were throbbing. I was scared because I thought what had probably begun as a joke was going to end with my being drowned. My lungs were bursting and I felt my last hour had come.*

*"Fortunately, there were two English Canadians in the pool. They saw what was happening and rescued me from the hands of my tormentors. Wherever Henry Miles and Bevan Monks are, I want them to know that I think I owe my continued existence and the 40-odd books I've written to their intervention."*

These people struck me as being very strange. Later on I realized that I must have appeared just as outlandish to them, and there I got my first really important lesson, a lesson I later on was to put into a poem which contained the lines "how to dominate reality." Imagination is one way and love another.

It is here at Macdonald College that I really learned the importance of poetry, because poetry is a language of love and imagination. If anything can bridge the difference between one people and another, one person and another, one culture and another, it's poetry. It has to be the language of the imagination. It has to be the language of life. Now I would like to read some poems for you.

### THERE WERE NO SIGNS

*By walking I found out*
*Where I was going.*

*By intensely hating, how to love.*
*By loving, whom and what to love.*

*By grieving, how to laugh from the belly.*

*Out of infirmity, I have built strength.*
*Out of untruth, truth.*
*From hypocrisy, I weaved directness.*

*Almost now I know who I am.*
*Almost I have the boldness to be that man.*

*Another step*
*And I shall be where I started from.*

For many years I was a lecturer at Sir George Williams University, now called Concordia, and I remember one infuriating episode when I was delivering a peroration. I was going great guns when a hand in the back of the room started waving and waving, waving. It wouldn't stop. It went on and on and I'm going on

thundering down the highway of vocables, of words, of syllables, of metaphors, and a hand waving and finally I said, "All right, what is it? What do you want?"

"Sir, will that be on the exam?"

### SEVEN O'CLOCK LECTURE

*Filling their ears*
*With the immortal claptrap of poetry*
*These singular lies with the power*
*to get themselves believed,*
*The permanent bloom on all time-infected things;*
*Indicating the will to falsehood in the hearts of men,*
*The music in a pismire's walk, the necessary glory of*
*dung,*
*immortal coal of the universe,*
*Leibniz's mirroring monads, daybeams of consciousness*

*I see their heads sway at the seven o'clock lecture;*
*I imagine they forget the hungers, the desperate fears*
*in the hollow parts of their bodies,*
*The physiological smells, the sardine cans, the flitch*
*of bacon,*
*The chicken bones gathered neatly*
*to one side of the plate;*
*Life is horrifying, said Cézanne,*
*but this is not*
*what he meant who picked flowers blooming*
*in the slaughterhouse; he meant the slit throats,*
*The bear traps smeared with blood, the iron goads,*
*the frightened*
*servant-girl's Caesarian,*
*And this planet dancing about Apollo,*
*the blood drying and shining in the sun,*
*Turning to Titians, beauty, the Arts...*

*My heart is parted like the Red Sea*
*It cracks!*
*And where the cleft is formed*
*The BARBARI carrying their chromium gods*
*on their sunburnt arms and shoulders*
*Ride on my nightmares, a hot desert wind*
*pushing them swiftly toward these faces*
*washed clean of Death and Agony;*

*God! God! Shall I jiggle my gored haunches*
*to make these faces laugh?*
*Shall the blood rain down on these paper masks?*
*Flammonde, Light of the World, in this well-lit*
*fluorescent age you are a failure, lacking savvy;*
*Gregor Metamorphosis, fantastic bogeylouse,*
*you are without meaning to those who nightly*
*bed down on well-aired sheets;*
*In the fifth row someone pulls out a laundered emotion*
*and wipes his long, false nose.*

*At last the bell goes, Lear lamenting Cordelia, the wall's*
*piercing cry...*

*You may grieve now, gentlemen.*

Now here is a poem I certainly could not have written if I had not gone to Macdonald College. In its immortal wisdom this college insisted that students taking agriculture must have some experience. Since I came from Montreal, I knew nothing at all about farming so I worked a whole summer on a Jersey farm not far from here, where there was a beautiful, beautiful Jersey calf. It was only three weeks old, and the owner of the farm said it had to be destroyed because there were enough bulls on the farm. This lovely, wonderful, magnificent creature was going to be killed. Luckily, I wasn't the one who had to do the killing. My job was to dig a shallow grave after it had been dealt its fatal blow and to cover it with dirt and sand and let it moulder away. Well, I did that. There was no time for mourning, but I remember my friend who was working with me had the hind legs and I had the front legs, and we swung it and dropped it into the shallow grave. I remember the organs in the calf making a squishing sound, and then it finally came to rest with one forepaw over the other.

That image has remained with me for nearly 50 years. One day, about 15 years later, I was sitting in the back of my house. It was a lovely day in summer when the image of the bull calf lying in the pit came into my mind, and I was seized with a certain feeling, which I always take as a good sign that a poem is about to come. I grabbed a pencil and wrote this poem.

## THE BULL CALF

*The thing could barely stand. Yet taken*
*from his mother and the barn smells*
*he still impressed with his pride,*
*with the promise of sovereignty in the way*
*his head moved to take us in.*
*The fierce sunlight tugging the maize from the ground*
*licked at his shapely flanks.*
*He was too young for all that pride.*
*I thought of the deposed Richard II.*

*"No money in bull calves," Freeman had said.*
*The visiting clergyman rubbed the nostrils*
*now snuffing pathetically at the windless day.*
*"A pity," he sighed.*
*My gaze slipped off his hat toward the empty sky*
*that circled over the black knot of men,*
*over us and the calf waiting for the first blow.*

*Struck,*
*the bull calf drew in his thin forelegs*
*as if gathering strength for a mad rush...*
*tottered... raised his darkening eyes to us,*
*and I saw we were at the far end*
*of his frightened look, growing smaller and smaller*
*till we were only the ponderous mallet*
*that flicked his bleeding ear*
*and pushed him over on his side, stiffly,*
*like a block of wood.*

*Below the hill's crest*
*the river snuffled on the improvised beach.*
*We dug a deep pit and threw the dead calf into it.*
*It made a wet sound, a sepulchral gurgle,*
*as the warm sides bulged and flattened.*
*Settled, the bull calf lay as if asleep,*
*one foreleg over the other,*
*bereft of pride and so beautiful now,*
*without movement, perfectly still in the cool pit,*
*I turned away and wept.*

I recall the circumstances of this next poem. I was in a hotel somewhere in the Laurentians working that summer as a bus boy or a waiter. There was a family in the lobby, and they were eating some watermelons, and the way they were munching at those watermelons was unforgettable.

## FAMILY PORTRAIT

*That owner of duplexes*
*has enough gold to sink himself*
*on a battleship. His children,*
*two sons and a daughter, are variations*
*on the original gleam: that is,*
*slobs with a college education.*

*Right now the four of them*
*are seated in the hotel's dining-room*
*munching watermelons.*

Karen Lyn Mudie, member at large of the Students' Council and Marc Vézina, president, presented Irving Layton with small gifts of appreciation for his visit. Dr. Roger Buckland, Dean of the Faculty of Agriculture, is at right.

*With the assurance of money*
*in the bank*
*they spit out the black, cool, elliptical*
*melonseeds, and you can tell*
*the old man has rocks*
*but no culture: he spits*
*gives the noise away free.*

*The daughter however is embarrassed*
*(Second Year Arts, McGill) and sucks harder*
*to forget.*

*They're about as useless*
*as tits on a bull,*
*and I think:*
*"Thank heaven I'm not*
*Jesus Christ —*
*I don't have to love them."*

You can see I didn't waste my years at Macdonald College.

The following poem I wrote after my mother died in 1959 at the age of 94 or 95. She always said she was about four or five years younger than what she was because she figured that if the angel of death didn't know her right age, he would be fooled.

My mother was a remarkable woman, full of tremendous energy, very obstinate, with a wonderful gift for cursing, and I know that I owe my impeccable ear for rhythm to my mother's vituperative cursing. Marvelous cadence. But chiefly I remember my mother because of her vanity. She was vain about her black eyebrows. She had pitch black, charcoal black eyebrows when time had soaked her head completely white.

For a long time I was not able to write the next poem. I had always been very close to my mother and suffered intensely because I could not express my grief. No words would come. Week after week, stretching into a month and two months, and still nothing. I had pretty well given up, thinking the muse had abandoned me or my grief wasn't sincere enough. There was a book on a table and I turned its pages. My eyes alighted on the word "lousiness," and this word unlocked the poem.

## KEINE LAZAROVITCH
## 1870-1959

*When I saw my mother's head on the cold pillow,*
*Her white waterfalling hair in the cheeks' hollows,*
*I thought, quietly circling my grief, of how*
*She had loved God but cursed extravagantly his creatures.*

*For her final mouth was not water but a curse,*
*A small black hole, a black rent in the universe,*
*Which damned the green earth, stars and trees in its stillness*
*And the inescapable lousiness of growing old.*

*And I record she was comfortless, vituperative,*
*Ignorant, glad, and much else besides; I believe*
*She endlessly praised her black eyebrows, their thick weave,*
*Till plagiarizing Death leaned down and took them for his mould.*

*And spoiled a dignity I shall not again find,*
*And the fury of her stubborn limited mind;*
*Now none will shake her amber beads and call God blind,*
*Or wear them upon a breast so radiantly.*

*O fierce she was, mean and unaccommodating;*
*But I think now of the toss of her gold earrings,*
*Their proud carnal assertion, and her youngest sings*
*While all the rivers of her red veins move into the sea.*

To leave you in a more cheerful frame of mind:

*God made the viper, the shark, the tsetse fly*
*He made the hyena, the vulture, the stoat*
*By the time he made man*
*He had the combination down perfect*

## BRIGHT'S WINES

*It takes*
*a decent*
*God-fearing*
*Canadian*
*to turn*
*a lovely grape*
*into a lousy*
*wine.*

Irving Layton read the following poems: "There Were No Signs," "The Birth of Tragedy," "Seven O'Clock Lecture," "The Bull Calf," "Family Portrait," "Keine Lazarovitch 1870–1959," "End of the White Mouse," "Senile My Sister Sings," "Eine Kleine Natch Musek," "God Made the Viper," and "Bright's Wines."

Students and staff took advantage of a wine and cheese reception at the end of the evening to talk with Irving Layton.


## ACKNOWLEDGEMENTS

Excerpts have been reprinted from *"Waiting for the Messiah: A Memoir"* by Irving Layton with David O'Rourke. Used by permission of The Canadian Publishers, McClelland and Stewart Limited, Toronto.

"There Were No Signs," "Seven O'Clock Lecture," "The Bull Calf," "Family Portrait," and "Keine Lazarovitch 1870–1959" are reprinted from *"The Collected Poems of Irving Layton."* Used by permission of The Canadian Publishers, McClelland and Stewart Limited, Toronto.

The poems "God Made the Viper" and "Bright's Wines" are reprinted from *"For My Neighbours in Hell"* by Irving Layton. Used by permission of Mosaic Press/Valley Editions, Oakville, Ontario.

## 45 Years a Dietitian and Teacher

# A Varied and Challenging Career

**by Professor Diane A. Raymond**


Sylvie Pilon did the honours at the luncheon Professor Raymond's students prepared in her honour prior to her retirement last year.

After retirement, when I was asked if I would write up some of the more vivid recollections of my active life, I wondered why me? What is different, exciting, or challenging about my 45 odd years as a dietitian? Then I realized that in that time span I worked with literally hundreds of people, individuals with widely varied assets, aspirations, and abilities. Any incidents or events I would recall and put on paper would certainly jog the memories of some of these individuals and really that's what post-retirement reminiscing is all about. Remembering not only what happened but who were part of that happening. The decision to select from among the masses of recollections stored in a memory bank isn't easy to make. Each incident has at least one element that supports its retrival. Does one select an incident or event that at the time had a very stong impact on subsequent actions? Does one select incidents that seem world shattering to those involved, or does one select the amusing incident which has over time become almost anecdotal?

You can judge this for yourself; you were probably involved to some degree with some of what follows.

My career started when I entered a dietetic internship at the Royal Victoria Hospital in Montreal after completing a B.Sc (HEc) at the University of Manitoba in 1941. Later, when I was teaching embryonic dietitians, some of them wondered why I "pushed" the internship. It certainly wasn't the pay (non existent), or the glamour (likewise), or even the excitement of at last getting out of the classroom or lab into real life. No, it was because this was and, to my mind, still is the most effective means for the student to move from an academically knowledgeable graduate into a competent professional able to assume responsibility and possessing true and proven skill capabilities.

During the 1960s internship appointments across Canada became highly competitive. The numbers seeking appointments greatly exceeded the available openings in hospitals or other institutions. While Mac had maintained a good ratio of appointments, it was becoming obvious that well qualified dietetic grads were not going to be able to meet the professional associations' admission requirements lacking as they did the internship. This, in turn, placed limitations on their job futures. At Mac we knew we had an obligation to make it possible for every qualified Dietetic major to have an internship. We found the solution by a restructuring of the Dietetic major to integrate into the program the components of the internship. What is said here in a few words actually was a very long, hard, time and energy consumming process convincing the university, the provincial government, and the professional associations of the need for this approach. To integrate the program into the undergraduate degree while keeping the academic time commitment within an acceptable limit meant summer "stages" between first and second and second and third years, plus a six-month extension over the normal three academic years. The university jealously guarded its right to decide on program content, which meant getting concensus between the academic community and the professional association on the contents of the total program. Removing this training activity from the hospital to the university meant the financing scheme required an inter-governmental department switch of funds — an operation that took three years.

For over three years the program flourished without the assurance of necessary funding. Finally, all was settled and the Dietetic program integrating an internship became and remains the Mac program in Dietetics.

Following my own internship I remained on staff at the Royal Victoria Hospital for a short period of time and then affected undoubtedly by patriotic fervour, a desire for new experiences, and being free and 21, "I joined the RCAF Women's Division as a messing officer. The RCAF (WD) motto was "we serve that men may fly" and in every sense of the meaning this was true. As soon as I was posted to my first station, the senior NCO in charge of the airmen's mess (the kitchen and dining areas) came up to me, saluted smartly, and informed me he was taking a special maths course which, on completion, would make him eligible for air crew training. He passed his course and left me "to serve" while he went off to fly.

It was during my air force days that I made contacts with many Mac graduates. There were a large number of Mac dietetic graduates among the 125 or so messing officers — names many

Top: Professor Raymond, with Chris Meerveld, supervises her last Food Production Management lab.
Center: students also prepared "the last supper" for Professor Raymond which was attended by staff and students. Seen here are: l to r, Liz Jennaway–Eaman of the Faculty of Education, Dr. Florence Farmer, retired from the School of Food Science, and Betty Crevier, long-time secretary in the School, also retired.
Below: the "formal portrait!" l to r, flanking the then Dean, Dr. Lew Lloyd, are Charlotte Dodds, Cathy Atcheson, Dr. Shirley Weber, Judy Coffin, and Professor Diane Raymond.

of you would be familiar with, including Helen Neilson, Celia Ferguson Henneberry, Helen Smith, and Jean Owen Gowdey. They were all super saleswomen for Mac. When I received my discharge from the air force I had several choices to make: go back to university at the government's expense and do graduate work, go back to the hospital dietary department, or go into commercial dietetics. Again, ever eager for new experiences, I decided to accept an offer from the T. Eaton Co., Montreal, to work with some 16 other dietitians in the restaurant department of the Montreal store. This work, which was managerial in nature, gave me the opportunity to gain experience in business management areas and, over a 15-year period, I was fortunate in having an opportunity to work in every area of a major food service operation including the bakery, hot and cold food production, retail merchandising, personnel development, plus all the related financial aspects of the business from budget planning to total financial responsibility for a major department.

In 1961 I made the decision to go back to graduate work. There were areas in the field that had developed and progressed that I knew little about and back to formal study seemed the best way to go. The years that I had heard Mac being praised influenced my choice, and I went with hat in hand to discuss with Helen Neilson, then Director of the School, my graduate study intentions. When I finished my interview I found I had been offered a position as lecturer in the school to teach the management based courses required by Dietetic majors and offered as electives to any option in the college. This would be a full-time teaching position, but I could use the summer period to pursue my original intent: the graduate degree. I accepted

and, although it meant a pretty tight personal schedule for a few years, it worked out as planned. I taught the courses during the normal academic year, had one term off and with the summers completed the M.Sc. degree. Once I was involved with students I found that my need for moving around to get new ideas, perspectives, and experiences was satisfied, and I remained at Mac until my retirement last year.

My memories of these years are filled with people, my peers and the students. A first-year course provided immediate contact with 70 to 100 new students and for several years I was academic advisor to the Dietetic majors and eventually the Food Management majors. One advantage of having courses taught in successive years is the extension of the time of contact you have with the students. You can't help but get to know students when you see them over a three-year period and, of course, they, in turn, can get to know and understand your pecularities and idiosyncrasies.

While the majority of my students were in the Dietetic option and were female, other majors such as Food Management, Engineering, Agricultural Economics, and General Agriculture contributed a male presence and some different perspectives to term papers and classroom and lab discussions. Organization and Management, Personnel Management, and Accounting were the courses normally elected by the non dietetic students.

In the Personnel Management course the different areas of work that class members had experience produced some heady discussions on the merits of particular managerial styles or on the work ethic as observed in action. At times I had a hard time avoiding a completely hysterical outburst when a case study was presented with absolute simulation of the case with accompanying body language and the students' accurate interpretation of the individuals they represented. Prizes for best actor could have been awarded each year. I shall always remember a rather shy and diffident student who didn't say much in class. His mother tongue was French which I thought accounted for this approach, but he shone in a case presentation, becoming the individual he represented before our eyes, even to clothing, walk, and deportment. I'm sure that particular case and all its ramifications hasn't been forgotten by his classmates and to this day I can't say whether he spoke mostly in English or French, but he certainly got across what he wanted to convey effectively and to spontaneous applause.

The class that probably has the most active memories has to be Food Production Management. I've often been asked why I didn't do as a number of other university programs offering the same course did and change from actual production labs to observation and theory. My reasons are found in student comments. They were quite aware that the limited exposure to planning and directing a meal production lab wouldn't make them overnight managers but there was agreement that this was the best way to put theory into practice in a controllable situation. It permits them to face the full responsibility of organizing others to meet a predetermined end result. The demands to achieve, to accomplish in a successful — not just adequate — manner something judged by others puts a lot of stress on the students, but where asked they fully supported the approach. As one commented, "it's one hands on experience that is really appreciated later in one's working life."

Over the years this lab has taken place in a variety of locations. Originally we used Glenaladale, the staff residence and dining room, on Saturday evenings (something I doubt if current students would accept). Guests included staff, parents, and friends. For a short period of time we used the student residence dining room and at one time provided evening meals for a group of 100 children temporarily housed in the student residence after fire had destroyed their orphanage. The Scholastic Awards Dinner was an annual lab activity for a group for a period of years. This dinner had every possible problem requiring a solution. Food had to be prepared in the lab and transported by truck to the dinner site in the Centennial Centre. Space in the CC for holding the food for service was stop-gap at best and demanding of great ingenuity on the part of the managers to make it work. The truck delivery was a volunteer effort on the part of a couple of Agricultural Engineers, usually one could drive and the other could manhandle the loads, but in a couple of instances the driver had never driven a truck or used a manual shift. On another occasion the truck wouldn't start, and once the loading dock and elevator were taken over by beer deliveries and staff and guests waited 25 minutes while that delivery was completed! Naturally, the elevator broke down at least once, and the spectacle of a student running across the campus from the Macdonald Stewart Building to the CC carrying a vital meal component was not all that unusual. It was bad enough to have to take all the supplies from the lab to the CC, but then all the dirty dishes, containers, and so on had to be taken back to the lab to be washed and then returned clean to the CC. It was a great learning experience for everyone, including Agricultural Engineer truck drivers.

Throughout these years I also maintained an active involvement in the National and Provincial Dietetics Associations as committee member, Chairman and CDA President. Annual meetings of CDA invariably provided an opportunity to meet up with former students, to catch up on their lives and often to bask in the reflected glory of their professional achievements.

My research for my Masters thesis had been partially supported by the Canadian Restaurant Association and from this work a Sanitation Code for the Food Service Industry was developed. For a number of years I worked with the CRA and other food industry associations and with federal and provincial public health officials to encourage a voluntary acceptance of the Code by the thousands of small and large restaurants in Canada.

The Canadian Food Service Executives is another association which loosened its all male admission requirements to permit me to join and subsequently to recognize with scholarship support the contribution to their industry being made by the university educated dietitians and food management graduates. Mac has had a Junior FSEA branch since the early 70s and more than 50 students have been scholarship recipients.

There are many many memories that have not been included, and many of those reading these words will say why didn't she mention such and such an incident. Well even if I didn't, you did, and if you did, the purpose of the article to reminisce a little has been met.

# Convocation June 6, 1986

The piper leads the way to another bright and successful Convocation.

Principal Johnston 'caps' a smiling graduate.

Above, Carl Anthony Doige, Agricultural Chemistry major, R. Haddon Common Prize, Governor General's Medal, and University Scholar, receives his degree from Registrar Stephen Olive. Left, Rena Popielnik, Dietetics Major, Governor General's Medal, University Scholar, receives her degree from Stephen Olive.

## EMERITUS PROFESSOR

Dr. Kevan receives congratulations from Chairman of the Board Hugh G. Hallward.

Mr. Chairman of the Board, Douglas Keith McEwan Kevan came to McGill University in 1958 as Professor of Entomology and Chairman of the Departments of Entomology and Plant Pathology.

He graduated B.Sc. (1st Class Honours in Zoology) from Edinburgh University in 1941 and proceeded from there to work in tropical agriculture and entomology in the West Indies and East Africa. In 1948 he returned to the United Kingdom and became the first head of the new Zoology Section in the Faculty of Agriculture and Horticulture of the University of Nottingham, where he taught and directed graduate students as well as establishing himself as a world authority on the taxonomy of orthopteroid insects. He organized the first International Colloquium on Soil Zoology in 1955. He completed his Ph.D. work at Nottingham in 1956, specializing in acridoid grasshoppers.

Dr. Kevan served as Chairman at Macdonald College from 1958 until 1971, when he relinquished the chair for health reasons. During his stay at McGill, he has contributed greatly to the university in many ways, including service on numerous university committees. He taught Parasitology, most aspects of Entomology, introduced courses in Soil Zoology to North America, and has been associated with 21 M.Sc., 21 Ph.D. and eight post-doctoral students.

He was instrumental in bringing about the transference of the Lyman Entomological Collections from the Redpath Museum to Macdonald College, and, together with Dr. V.R. Vickery, has developed from them the internationally recognized Lyman Entomological Museum and Research Laboratory. Dr. Kevan became the first Director of this in 1971 and has continued in this capacity to the present.

His research productivity is remarkable, not only for its volume, but for its range. He has nearly 500 publications, several of them of book length, and has published works on, amongst other subjects, insect taxonomy, morphology, behaviour, and several aspects of soil zoology. In recent years he has integrated Science and the Humanities by investigating the history, literature, and visual arts associating man with insects. In this field of Cultural Entomology, he is a leader and was unique at the time in holding, simultaneously, National Research Council and Canada Council grants.

Dr. Kevan has been very active in many scientific organizations and was one of the three founders of the Biological Survey of Canada, upon whose Scientific Advisory Committee he still serves. His principal distinctions include: Fellowships in the Royal Society, Edinburgh, Entomological Society of Finland, Entomological Society of Canada and Honorary founding Membership of the International Orthopterists' Society. He is a Past-President of the Montreal Branch of the Entomological Society of Quebec and the Entomological Society of Canada. Perhaps his most notable award is the Gold Medal for Outstanding Achievement in Canadian Entomology, which was presented to him in 1981 by the Entomological Society of Canada.

In addition to his academic abilities Dr. Kevan has demonstrated theatrical talent. Not only has he acted in amateur dramatic productions, but he has written and directed a number of these. He is also a historian, linguist, and poet of no mean ability.

Mr. Chairman of the Board, it gives me great pleasure to present to you and this convocation, our colleague, Douglas Keith McEwan Kevan, and ask you to designate him Emeritus Professor of our Faculty and of the University.

**Robin K. Stewart**
**Department of Entomology**

## EMERITUS PROFESSOR

Dr, MacLeod being congratulated by Hugh Hallward.

Mr. Chairman of the Board, Robert Angus MacLeod came to this campus in 1960 and thus completed his quarter century with McGill University last year. However, he was an Albertan by birth and obtained his first two degrees during the war years at the University of British Columbia in Chemistry and Biology before going to the mid-West for a Ph.D program in Biochemistry with Esmond Snell at the University of Wisconsin. Here he became interested in the metal ions which are required for growth by the lactic acid-producing bacteria (such as those responsible for yoghurt formation), and he has always maintained his interest in inorganic ion requirements for growth. After three years as Assistant Professor at Queens University, Kingston, he returned to the West as Senior Biochemist in the Fisheries Research Board of Canada at Vancouver, a post which he held for eight years before coming to Macdonald. Applied studies of herring, salmon, and even whale led him into much more basic studies of the role of inorganic ions, especially sodium, in the physiology of bacteria and of the ways in which bacteria from the sea might be intrinsically different from terrestrial bacteria. Such investigations were continued at Macdonald and have required fundamental studies of microbial cell walls and membranes, and of the specific mechanisms by which nutrients are transported across these outer defences of the cell. Recently, he and his honorary co-worker (his wife, Pat MacLeod), have succeeded in cloning a gene which codes for one of these specific transport systems.

Professor MacLeod's work was recognized early by his receiving the Harrison Prize of the Royal Society of Canada in 1960. In 1972 he was elected a Fellow of the Royal Society and in the following year was the recipient of the CSM Award from the Canadian Society of Microbiologists for outstanding contributions in microbiology. He has published some 120 scientific papers and was recently invited to write a semi-autobiographical review article for the journal *Annual Review of Microbiology.*

Bob MacLeod has ably served the University, this Faculty, and his Department by his contributions on committees, as a member of senate, Chairman of faculty staff meetings and in two periods as Department Chairman. His council has been sought by various bodies within the university on many occasions.

He has been president of the Société de Microbiologie du Québec and of the Canadian Society of Microbiologists, and he has served in an editorial capacity for the Canadian Journals of Microbiology and Biochemistry.

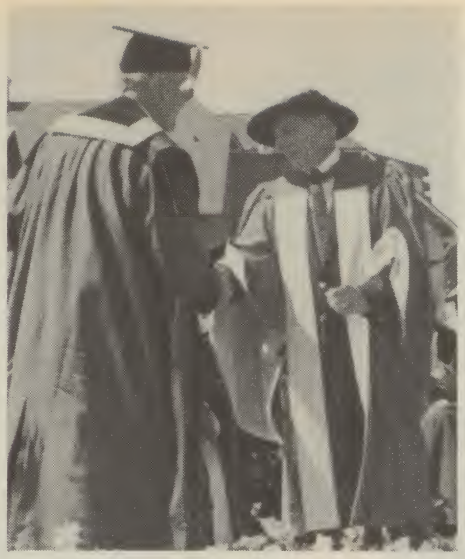
It is interesting to note that despite his professional research and academic activities, he and his wife Pat have found time to bring up six children. They propose at this time to devote a larger proportion of their time to their research.

Mr. Chairman of the Board, I have the great pleasure and honour to present to you and to this Convocation, our colleague Robert Angus MacLeod that you may designate him Professor Emeritus of this Faculty and of our University.

**Roger Knowles**
**Department of Microbiology**

## EMERITUS CURATOR

Mr. Chairman of the Board, Vernon Randolph Vickery is a descendant of one of the oldest families of Nova Scotia, where he was born, was raised, and obtained his early education. Receiving his teacher's licence from the Nova Scotia Normal School in 1940, he taught briefly before enlisting in the Royal Canadian Air Force. He was detached to the Royal Air Force with which he saw active service overseas.



Hugh Hallward, Chairman of the Board of Governors, and Dr. Vickery.

After demobilization, he resumed studies at Macdonald, B.Sc.(Agr.) 1949, MSc.(Agr.) 1957, Ph.D. 1964. He spent 12 years, 1949-61, as a Provincial Government extension entomologist based at the Nova Scotia Agricultural College at Truro. There he gained wide experience not only in practical and research aspects of economic entomology but also established himself as a grasshopper and cricket taxonomist of note. He also became widely acclaimed as an expert in apiculture. Indeed the pollen dispenser which he and a colleague introduced is still standard equipment, as illustrated in the very latest international encyclopedia of beekeeping.

As any working academic should be, Vernon Vickery is versatile, with a broad perspective and expertise in more than a single narrow field. It was, therefore, not primarily for his knowledge of apiculture or of economic entomology that he was appointed to the Department of Entomology and Plant Pathology at Macdonald College a quarter of a century ago. It was to take up, as Assistant Professor, the first academic curatorship of what was then known as the Lyman Entomological Collection, and his first task was to transfer that collection from Montreal to the Macdonald campus (where it became the Lyman Entomological Museum after the incorporation of the Macdonald College insect collection in 1962).

Vernon Vickery had teaching and research responsibilities over and above his curatorial duties, and he established virtually the first course in beekeeping at Macdonald College. Later he developed a bee research program, in the course of which a practical, economic method of overwintering honey-bees in eastern Canada was developed.

It is to Dr. Vickery that so much of the growth and development of the Lyman Entomological Museum and its associated Research Laboratory, from a position of comparative obscurity to an institution of international renown, is due. It has become an active centre of biosystematic (including cytogenetic) research and an effective centre of public education under his curatorship.

Professor Vickery's publications are numerous, but perhaps the one that is most truly related to his curatorship is that co-authored with Professor Kevan, the two-volume, 1,400-page "Monograph of the Orthopterid Insects of Canada and Adjacent Regions," published by the Museum itself. An abridged version is shortly to be published by Agriculture Canada.

Among his many services, other than apicultural, to the scientific community, Vernon Vickery was for some time Editor of "*The Canadian Entomologist*" and has been Vice-President and a Director of the Montreal Branch of the Entomological Society of Quebec. In the international field he is widely acclaimed and is currently President of the world-wide "Orthopterists' Society" (formerly Pan American Acridological Society, of which he was a founder member). In 1985, he was honoured by being elected a Fellow of the Entomological Society of Canada.

Professor Vickery also has interests other than entomological. He was for long active with the Boy Scouts and Sea Scouts of Canada. He is an avid philatelist and numismatist and an expert on antique (or antiquated?) small arms and hand-guns — so watch out!

Mr. Chairman of the Board, it gives me great pleasure to present to you and this convocation, our colleague, Vernon Randolph Vickery, and ask you to designate him Emeritus Curator of the Lyman Entomological Museum and Research Laboratory of this university.

**Dr. Roger Buckland**
**Dean, Faculty of Agriculture**

Scott Kirby of Compton, Que., receives congratulations and his Diploma from Registrar Steve Olive.

Professor Donald F. Niven, left, received the Award for Teaching Excellence from Chairman of the Board Hugh G. Hallward.

A happy Theresa Greene of West Brome receives her degree from Registrar Steve Olive.

## AWARD FOR TEACHING EXCELLENCE

Mr. Chairman of the Board — Last year, the Faculty of Agriculture and the School of Dietetics and Human Nutrition approved the terms of reference for an award established to honour an outstanding instructor in the Faculty or the School who deserves recognition for his or her teaching skills. This award has been named the "Macdonald College Award for Teaching Excellence."

The selection of the award winner is made from a list of candidates nominated by the graduating students, the graduates of the last five years, and the academic staff. Its presentation is made at convocation.

It is indeed a privilege and a pleasure for me to present to you the recipient of this first award, Professor Donald F. Niven of the Department of Microbiology.

Several comments were made in support of Professor Niven's nomination. Let me cite a few. One student said: "He is helpful in explaining or expanding on what is taught in the lectures." Another pointed out that "he demands a great deal from himself as he does from his students, both postgraduate and undergraduate," while another indicated that "he makes his students think about what they are doing and learning."

One comment was prevalent in the praise of Professor Niven: "He genuinely cares about giving a good lecture and about the students so that they readily learn the material presented to them."

In addition, one student in particular, and I am sure he is not the only one, enjoyed "His quick sense of humour that made learning the material a pleasure."

Mr. Chairman of the Board, may I call upon you to present the plaque, symbol of the award, to Professor Niven.

**Dr. Jean David.**
**Associate Dean, Student Affairs and Public Relations**

Almost more cameras than graduates! Dean Buckland poses with two proud graduates.

Valedictorian Peter Enright received hearty congratulations from all for an excellent address.

Married a year before coming to Mac, graduates George and Laurie Schell from Kanata, Ont., met while fruit picking in B.C. They were going back there this summer for a holiday before George starts on his Master's in Agricultural Engineering here at Macdonald this fall.

A family portrait: Dale Burns from Cookshire, Que., with his parents and brother Neil, Dip '82.

Agricultural Engineers wait in line to receive their degrees.

## HONORARY DEGREE

Mr. Chancellor, it is my privilege to introduce to you, and to this Convocation, Professor John Milton Bell, a distinguished teacher, nutritional scientist, and university administrator, who has contributed to agricultural development and production in North America and throughout the World.

Professor John Milton Bell is the Burford Hooke Professor of Agricultural Science in the Department of Animal and Poultry Science at the University of Saskatchewan, an Institution at which Professor Bell has served for the past 38 years.

Professor Bell received the B.Sc.A degree at the University of Alberta in 1943. This was followed by a period at Macdonald College where, in 1945, he received his M.Sc., working under the direction of Professor E.W. Crampton in the then Department of Nutrition. In 1948 Professor Bell received his Ph.D. at Cornell University.

In 1948 John Milton Bell joined the staff of the Department of Animal Science at the University of Saskatchewan as an Assistant Professor and progressed rapidly through the academic ranks to become Professor and Head of the Department in 1954. His leadership of that Department continued until 1975, at which time he was appointed Associate Dean (Research) of the College of Agriculture, a position he held for a five-year period. From 1980 John Milton Bell has been the Burford Hooke Professor of Agricultural Science.

Complementing Professor Bell's contribution as a teacher and administrator has been his outstanding and continuing career in research. There are many ways of describing Professor Bell's research achievements, all of which attest to its excellence. He has been author or co-author of over 130 papers published in refereed journals. He has contributed 14 review articles and book chapters. He has presented invited papers at enumerable conferences and symposia in North America and Europe.

As part of his research involvement, he has supervised the graduate programs of 34 students, 21 having been awarded an M.Sc. and 13 a Ph.D. degree. Many of these students have themselves become distinguished leaders in their field.

Dr. J.M. Bell receives his honorary degree fom McGill Chancellor A. Jean de Grandpré.

Professor Bell's research specialization has been in the area of animal nutrition and has specifically dealt with the optimum utilization of different feed ingredients by swine, poultry, and dairy calves. In addition to his work on forages, wheat, barley, and oats, it is one particular crop which has characterized his lifetime research contribution. The rapeseed plant has been termed western Canada's Cinderella Crop, because of the large increase in acreage devoted to its production and its world-wide marketing potential, contributing new sources of revenue to Canadian agriculturists. Professor Bell's research has centred on the use of the rapeseed meal, the by-product after oil extraction, as a protein supplement in livestock rations. Due to great improvement in nutritive value accomplished through plant breeding, the Canadian crop is now designated as canola and Professor Bell's work has continued to characterize the nutritive value of canola meal. In the service of the Canadian government, Professor Bell has been part of rapeseed/canola technical missions to nine countries in Europe and Asia.

Over the course of his career John Milton Bell has received many awards and honours in recognition of his outstanding contributions: the Borden Award of the Nutrition Society of Canada; the First Agricultural Laureate in Canada, by the University of Guelph; the Order of Canada (O.C.) the Queen's Silver Jubilee Medal; the Canadian Feed Industry Award; the Centennary Medal of the Royal Society of Canada, of which he has been also named a Fellow. Added to these honours, we would today bestow upon Professor Bell the first honorary degree he has received, and believe it is of special significance that it comes from the institution at which he had been a post-graduate student.

Mr. Chancellor, may I present to you, so that you may confer upon him the Degree of Doctor of Science, *honoris causa,* this most distinguished and productive University teacher, administrator, and research scientist, Professor John Milton Bell.

**E. Donefer**
**Professor, Department of Animal Science**
**and Director, McGill International**

# WHY ARE WE HERE?

**by Professor J.M. Bell**
**Department of Animal and Poultry Science**
**University of Saskatchewan**

Mr. Chancellor, Mr. Principal, Mr. Vice-Principal, Mr. Chairman of the Board, platform guests, graduates, ladies and gentlemen: Returning to Macdonald College on this occasion will rank as the highlight of my life and career. I have many fond memories of this beautiful campus. I made many life-long friends among staff and fellow students and had the opportunity to study under the guidance of the world-renowned animal nutritionist E.W. Crampton. Should history perchance record that I made some worthwhile contribution to society, much of the credit must go to this professor and this college.

I wish to express my gratitude to the Senate of McGill University and to you, Mr. Chancellor, for the great honour bestowed upon me today. My thanks also to Professor Donefer for his kind remarks but I must add that much of this honour rightfully belongs to my

At the reception following Convocation, Dean Buckland, Dr. J. Milton Bell, and Drs. Bill and Laura Rowles. The Rowles remember Professor Bell as a Masters student at Macdonald.

many former students and to my colleagues without whose help and inspiration I would not have been here today.

I have done some reflecting on my being here and particularly on the strategy that was used to get me to address this gathering. After basking for a week over the news that I was to be honoured today, the Vice-Principal thought he had the last laugh by telling me "of course you'll have to sing for your supper!" Perhaps he was not aware of the precedent set by the late John G. Diefenbaker who, when similarly honoured at the University of Saskatchewan, requested that his remains be interred on the university campus. Sometimes, as I walk past his grave site near the Diefenbaker Centre, I think that I hear a faint Chuckle!

Perhaps I am not the only one present today who is pondering the question "WHY ARE WE HERE?", which I believe is an appropriate theme for this occasion. These are troubled times. The farming sector of Canada is experiencing the most severe economic conditions in half a century. Policies in Europe and the United States aimed at resolving their food production and exporting problems are hurting us badly. Unemployment statistics in Canada are depressing, perhaps giving cause to question the wisdom of choosing agriculture or food science for a career. With a little effort one could become pathologically pessimistic! However, the accomplishments of pessimists would not fill a very large book.

What are the employment prospects? Granting that averages and official figures often seem somewhat remote and impersonal, data from Statistics Canada indicate that over the past six years 30 per cent of Canadians aged 15 to 24 years, and who had completed up to eight years of schooling, were unemployed. This compared with 20 per cent unemployed among those who had completed high school and eight per cent among those who had university degrees. Those with diplomas and other types of post-secondary non-degree education had about 12 per cent unemployment. In other words, over 90 per cent of those having university degrees were able to obtain employment. Graduates in agriculture tend to fare better than average. A report just released, conducted by the Agricultural Institute of Canada (AIC) and Canada Employment and Immigration, supports a relatively optimistic outlook for employment of graduates in agriculture, with further improvement expected over the next few years. Let us hope these predictions prove correct.

The university graduate is not only more successful in the job market but for various reasons ranks among the more privileged people in society. About 87 per cent of the 18 to 22 year olds never attend university. University students possess traits not given opportunity to develop in every family. Personal motivation, basic intelligence, good schooling, perseverance, hard work, and family support bring each successful student to the milestone of graduation. Having now reached the point of convincing the professors and the Dean that enough knowledge has been acquired, it is sobering to realize that from here on the 87 per cent who never went to university are the ones you ultimately must answer to. They will be watching, they will accept or reject your products, your services, and your advice. They will determine the nation's policies by their votes. They may even pay your wages! Your ability to solicit their support, as you strive to build a better world, therefore depends on the quality of your performance from here on.

Complicating the challenge to "deliver the goods" in a manner that earns the respect of your clientele, is the fact that we remain haunted by popular but outdated images of agriculture as a profession and of farming as a vocation and a business. Romantic and nostalgic perceptions of farming make good grist for country song writers but do little to enhance the image of agriculture. Too often the concept of food supply rests between the grocery list and the shelves in the supermarket. A plentiful supply of food at the lowest cost in the world in terms of hours of work required to pay the grocery bill is regarded as a God-given right by many Canadian consumers. Groceries cost twice as much in Sweden and Italy and four times as much in Japan as in Canada, relative to earning power. Unfortunably, the role or the plight of the farmer rarely enters the mind of the average urban consumer.

Agriculture deserves better and more widespread understanding. The advent of agriculture marked the first successful step taken by man to reduce his dependency on the whims of nature for his survival. It probably was the first area of human activity to witness the successful application of logic and reason for the betterment of the race. Even today it is apparent that countries that fail to give food production top priority pay dearly in terms of retarded social and economic development.

Despite the paramount importance of food production, centuries passed before the subject of agriculture was accepted as a legitimate area of study in a university environment. It simply did not demand the intellectual rigour associated with languages, literature, botany, chemistry, physics, or mathematics. This view persists to some extent today. Some agricutural faculties and students also regret the lack of opportunity in crowded curricula to

include more courses from the Arts, Sciences, and Humanities.

The academic respectability that we now enjoy came as an evolutionary process. Firstly, students tended to be of rural origin and often were ill-prepared for university education. This changed. Secondly, botanists, chemists, mathematicians, geneticists, and others laid the foundation for scientific agriculture. The chemistry of feeds and the application of genetics to plant and animal breeding led to the modern, highly efficient production systems for raising animals and for growing all kinds of crops. Microbiologists have contributed much and are playing an increasingly important role. Mathematicians provided the basis for applying statistical methods to the design and interpretation of experiments, putting agriculture in the lead in terms of the productivity and credibility of its research.

Let us hope that we will continue to benefit from the efforts of academics in non-professional colleges, where scholarly activity is less closely tied to the economics of the market place. This subject, of course, touches upon academic freedom. Every thinking Canadian should ponder this issue, especially graduates. Historians and political scientists can tell us the consequences of universities losing their academic freedom. But what is it? How much or how little control should government exercise on what a university does or says? Decisions being made in these times of constraint will have an important bearing on future research and scholarly work done in Canada.

In addition to the slow acceptance of agriculture as a bona fide member of the academic community, the evolutionary development of farming probably also influenced the popular image of agriculture. In primitive society most of man's wakeful hours were spent in search of food. (Parents of teenagers might say nothing has changed!) This was no doubt true of the situation for the early immigrants to Canada, however, we have witnessed great changes within the past century. In 1890 about 15 per cent of our population was engaged in agricultural employment mainly working on farms; today it is less than two per cent. We have less than half as many agricultural workers but four times as many people in Canada. Farm size has doubled since 1931. With farming increasing in both scale and intensity an increasing proportion of our population is engaged in servicing agriculture, providing machinery, fuel, fertilizer, chemicals, and so on. In fact, the agriculture and food system in Canada, including processing and distribution, accounts for one-sixth of our total economic activity and employs one in every five working Canadians. Nevertheless an increasing proportion of society is losing contact with farming, developing new areas of interest and new concerns and losing sight of the central importance of maintaining viable farming in Canada. The social and political aspects of farming have irreversibly changed and agriculturists are alarmed.

Two recent reports, aimed at increasing public awareness, have appeared. Firstly, the Senate Report entitled "Soil at Risk" stated bluntly "Canada is facing the most serious agricultural crisis in its history and unless action is taken quickly, this country will lose a major portion of its agricultural capability."

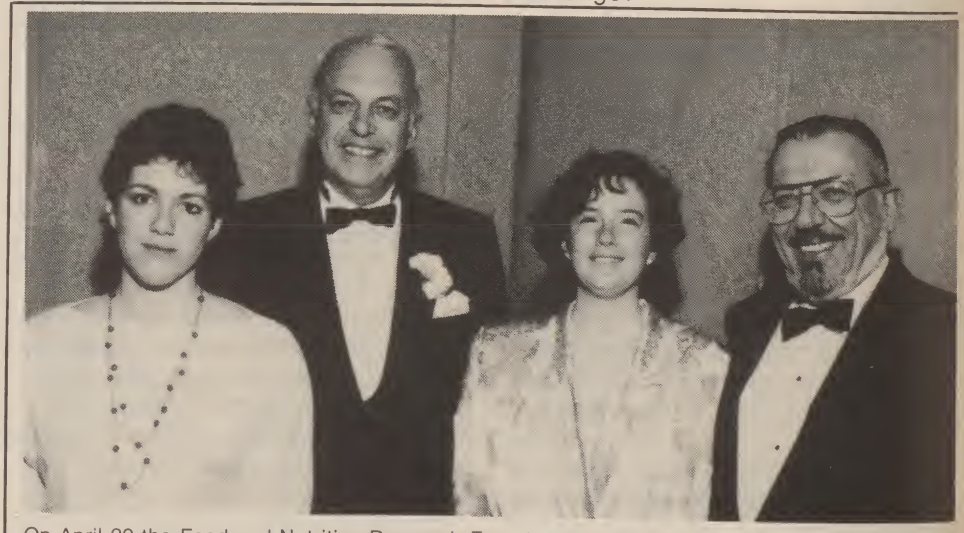
The other report was entitled "Will the Bounty End?", a very thought-provoking book covering a wide variety of topics and written under the auspices of the AIC. This clearly reflects the concerns of the AIC membership, (some 6,000 in number) about erosion, soil quality, chemicals, land use, productivity, and high technology as they affect our ability to sustain viable farming indefinitely into the future. Of special concern seems to be the unwillingness of society itself to recognize and assume its responsibility in policy development such that it will be possible for farmers to practice soil conservation effectively.

Where do today's graduates fit into this puzzle? Leaving this ceremony and this institution, armed with degrees and diplomas, one is apt to feel isolated and powerless to effect momentous change. However, let us identify our strengths and weaknesses and decide on our strategy.

One of the great attributes of a university education is the ability to find information and to organize, interpret, and evaluate it. This skill is not only of benefit in the job situation but may be called upon for the greater benefit of society, such as was done by the AIC in their study which resulted in the book "Will the Bounty End?", and on sevaral other occasions when this organization of agricultural graduates became concerned about trends and policies not operating in the long term interests of our agriculture and food supply.

What AIC President C.F. Bentley said in 1964 is no less true today: "Firstly, we have an obligation to play a role of leadership in matters relating to our competence. As citizens of superior endowment and education, we have a general responsibility to stimulate interest in and resolution of the great issues of our time."

Congratulations and best wishes to the 1986 Graduates as you take up this challenge!



On April 20 the Food and Nutrition Research Foundation established by the Food and Allied Industries Division of the State of Israel Bonds awarded scholarships to l, Marie-Josée Olivier, 2nd year Food Science student, and Sophie Courchesne, 2nd year Nutrition student. With them are, l, Jacques St-Arnaud, President of the Foundation, and Dr. Jean David, former Associate Dean, Student Affairs.

# Macdonald Receptions

## TORONTO GATHERING: A GREAT SUCCESS

**by Greg Weil**
**Macdonald Field Officer**

More than 65 graduates and guests attended a Macdonald Reception at the World Trade Club in Toronto on Thursday, May 29, 1986. Murray McEwen, BSc(Agr) '53, the host member at the Club, introduced the special guest Dr. Roger B. Buckland, BSc(Agr) '63, MSc(Agr) '65, Vice-Principal (Macdonald College) and Dean Faculty of Agriculture. Dr. Buckland gave an overview of current trends and developments taking place at the college, touching on student enrolment, teaching, research, extension services, graduate activities, and the McGill Advancement Program. Graduates were delighted and encouraged to hear of the exciting developments taking place at Macdonald and of the renewed vigour and strength of the faculty.

Dr. Buckland introduced two key faculty members who also attended the reception: Dr. Robin Stewart, Associate Dean Research, and Dr. Alan Watson of Plant Science and team leader of the biological herbicides project.

John Grisdale, BSc(Agr) '49, the son of the late Frank Sydney Grisdale, BSA 1911, who was a member of the first graduating class of Macdonald, thanked the Dean on behalf of the graduates for sharing with them the news of Macdonald and wished Dean Buckland and Macdonald all the best for the future.

Dean Buckland presented Murray McEwen with a Macdonald College Wall Hanging and thanked him on behalf of the Macdonald family for all he has done for the college over the years.

Top: Fred Coulson, BSc (Agr) 53, Bunny Sorley, Irene Coulson, Victoria Hanes, Joan Glenn, Duncan Glenn, BSc (Agr) '53. Centre: Stephen Casselman, BSc (Agr) 68, and Robert Nutbrown, BSc (Agr) '68. Bottom: John Grisdale, BSc (Agr) '49, Dr. Roger Buckland, BSc (Agr) '63, MSc (Agr) '65, Murray McEwen, BSc (Agr) '53.

Phyllis Gillis, BSc (HEc) '54 and Eileen Vice, BSc (HEc) '54 catch up on the news as did all those in the following photos.

Louise McDonald, BSc (Agr) '77, and Karen Kennedy, BSc (FSc) '77.

Patricia Reynolds, BSc (HEc) '53, Anne Hyde, BSc (HEc) '53 and Anna Hobbs, BSc (HEc) '58.

Dr. Darriel MacDougall, MSc '41, PhD '44, McGill, and Phyllis MacDougall, BSc (HEc) '46, with Dr. Alan Watson of the Department of Plant Science.

Alan Watson with Alexander McKinney, BSc (Agr) '65, and Robert Robson, BSc (Agr) '65.

# OTTAWA GET TOGETHER: A FAMILY AFFAIR

On Sunday June 15, 1986, over 50 Mac graduates and their families living in the Ottawa region met for an afternoon get together and barbecue at the farm of Gibson Patterson, BSc(Agr) '60. The Patterson family made everyone feel right at home. Two McGill Physical Education students were on hand to organize games for the youngsters and to watch them in the pool. Each and everyone of them went home with a prize thinking what a wonderful place this Macdonald College must be.

Prior to the barbecue, Gib Patterson introduced Roger Buckland BSc(Agr) '63, MSc(Agr) '65 and called on him to say a few words. Dean Buckland gave graduates and their families an overview of current trends and developments taking place at the college. Graduates were happy to hear that enrolment is growing and that the college is thriving.

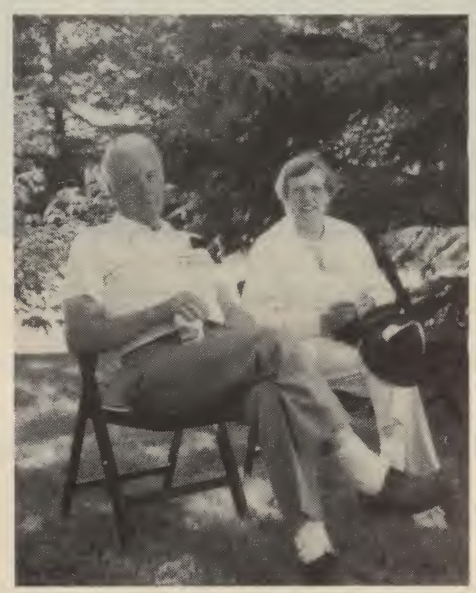
Donald Grant, BSc(Agr) '60, MSc(Agr) '62, PhD '66, a long-time friend of Dean Buckland's thanked him for coming up to Ottawa and spending the afternoon with graduates and for bringing them up to date on college affairs.

Everyone sat down to a delicious Ottawa Valley barbecue chicken dinner with home-made rolls and doughnuts for dessert. After the meal, Dean Buckland presented Gib and Elsie Patterson with a Macdonald College Wall Hanging as a token of appreciation for their hospitality, generosity, and hard work in putting on the Macdonald Day.

The afternoon was also special in that Drs. Bill and Laura Rowles were in attendance. Many of the graduates had taken courses from them, and were delighted to see them.

Donald Grant came up with a great idea — a future get together in Ottawa of Mac grads could be centred around a "three dean barbecue!" With deans: Dr. George Dion, Dr. Lew Lloyd, and Dr. Roger Buckland living in the area, it would be a three-dean affair, but it could easily be expanded to four deans if Dr. Clark Blackwood could be persuaded to come East for the occasion.

Roger Buckland chats with Gib Patterson and Donald Grant while his wife Vicki meets other Ottawa grads.



Clarence (Cyril) Dahms, BSc (Agr) '39 and Christine May Dahms, BHS '39, enjoying the festivities.

Roger Buckland presented a Macdonald wall hanging as a thank-you gift to Gib Patterson and his wife.

Picnic tables were set up under a large tent where everyone enjoyed a barbecue chicken dinner.


Representing Macdonald College at the Graduating Class Officers Reception are, l to r, Dean Roger Buckland, Marie-Claude Lapierre, Michele Banks, Alain Léger, and D. Ross Grant, President of the Macdonald Branch.

## Graduate Leadership

Principal David Johnston was present to welcome students in their graduating year to a special reception in their honour at Martlet House on March 20, 1986. He thanked all those present from McGill's 12 faculties and 11 schools for the important service they will perform for McGill in the future as volunteer class officers and agents — the vital link between the class unit and the university.

As officers and agents, they are the medium through which graduates maintain an interest in and keep in touch with their alma mater. Speaking from his personal experience as a Harvard agent, Dr. Johnston stressed that such service was pivotal to the future prosperity of the university.

Representing Macdonald College in the Faculty of Agriculture were Michele Banks and Marie-Claude Lapierre and in the Diploma Program, Alain Léger. Anne Delmas has agreed to represent the School of Dietetics and Human Nutrition.

An annual newsletter to classmates from the class officer has been the most effective and usual method of communication to keep graduates in contact with each other and maintain a strong class identity. Friendships are further strengthened by a reunion organized every fifth year which not only brings alumni together but back to their "roots" at the university.

The role of the class agent is to develop support for the university from alumni to the Alma Mater Fund. All faculties have benefited from annual donations, as well as gifts to specifically designated areas, whether it be for scholarships, libraries, or campus care, etc.

Throughout its long history McGill has always been assisted by private funds and Macdonald College is no exception. In the words of Hugh Hallward, Chairman of the Board of Governors, it is thanks to the generosity and good will of its graduates that McGill "continues to do better those things we already do well."

## REUNION '86 PLANS AHEAD

Jean McHarg, Chairman of the Reunion '86 Committee, is pleased to report that there is a representative in place for most of this year's honour classes. She is confident of a good turn out for the September 27 Homecoming and welcomes all graduates, near and far, to join us for the Reunion.

Full details of the day's varied program — to include leadership seminars, campus van tours, "open house" visits to selected areas of the college and a special luncheon — will be listed in the Reunion brochure and sent to honour years and Montreal area graduates early in August.

In addition to the scheduled activities Class Chairmen (listed below) are arranging special events for their respective classes. If this is a reunion year for you (graduates of years ending in 6 or 1) but your class is not listed below, please contact Susan Reid (514-392-4815) at 3605 Mountain Street, Montreal, Quebec H3G 2M1, and discuss plans for your year.

## MACDONALD REUNION 1986 — CLASS CHAIRMEN

| Faculty & Year | Chairman |
|---|---|
| Agr. & Food Science 1981 | Mr. Wayne Fairchild |
| Agr. & Food Science 1976 | Mr. Rick Walter |
| Diploma Agriculture 1976 | Mr. Jacques Bienz |
| Agr. & Food Science 1971 | Mrs. Kathie Moffat |
| Agr. & Food Science 1966 | Mrs. Beverley Mothersill |
| Agr. & Home Ec. 1961 | Mrs. Gale Elliott |
| Agr. & Home Ec. 1956 | Mr. D. Grant Ross |
| Agr. & Home Ec. 1956 | Mrs. Ann Anderson |
| Diploma Agr. 1956 | Mr. Milton Hooker |
| Agr. & Home Ec. 1951 | Mr. J.W. Ritchie |
| Agr. & Home Ec. 1946 | Mr. Jean Paul Cristel |
| Agr. & Home Ec. 1941 | Miss. Mary Freeman |
| Agr. & Home Ec. 1941 | Mrs. F. Lamb |

**COME BACK AND MEET YOUR CLASSMATES**

# REUNION '86

All welcome, especially graduates of years ending in 6 or 1

**Macdonald Reunion will be held on September 27 at Macdonald College in Ste. Anne de Bellevue**

## Where Have all the Dips gone?

Following the initiative of John Standish, Dip '56, and a group of colleagues from the Diploma program, the Macdonald Branch of the Graduates' Society undertook a research project to trace Macdonald's diploma graduates and organize them into an association. The aim was to keep Dips in touch with each other and up-to-date on recent developments at the college.

The first stage of this pilot project included a letter to all Diploma students associated with the college over the past 10 years, from 1975-1985 inclusive, requesting them to send in recent information on their whereabouts and that of "lost" colleagues. When the initial deluge of replies had died down to a trickle, the foundations for each class unit were in place and ready to build on.

The next objective was to find assistance in each year in the form of a representative willing to coordinate a class newsletter and questionnaire with the support of Martlet House staff. With a contact in place, it was hoped that by the process of "networking" class members would help find one another!

The project has been underway for six months and now needs your help to succeed. If you graduated from the Diploma program since 1976 and have not received information on this project, please contact Kathy Whitehurst at Martlet House, 3605 Mountain Street, Montreal, Quebec H3G 2M1, or phone at (514) 392-4816 to advise her of your present address and year of graduation. If you would like to be of further help, any assistance would be more than appreciated.

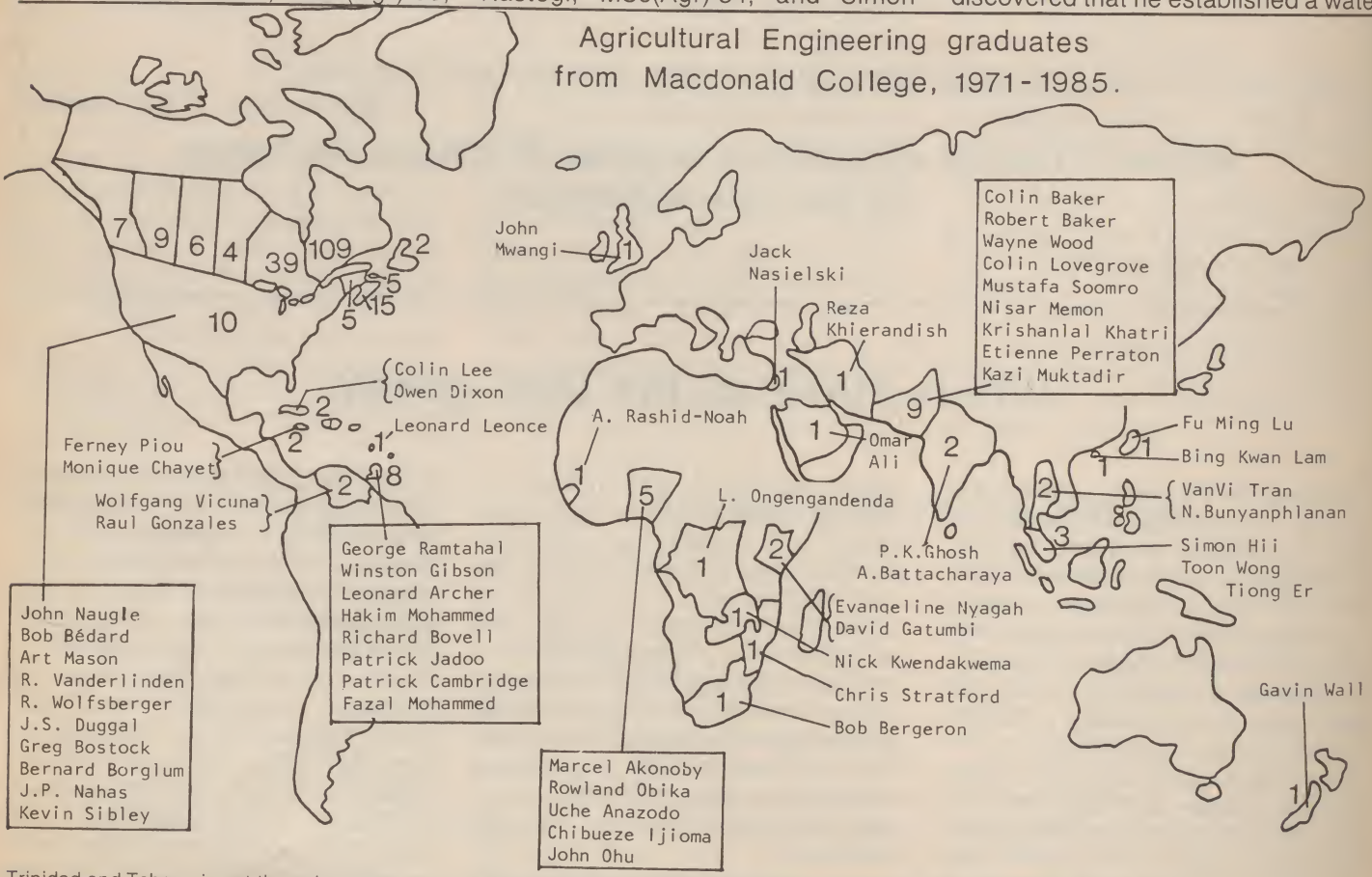
Much is riding on the success of this first search. If well supported, future plans of the Macdonald Branch are to extend this research as far back as 1960, or even earlier.

# An Update on Mac Grads in Trinidad and Tobago

**by Professor Edward McKyes**
**Department of**
**Agricultural Engineering**

Are the student "huts" still there? How are Professors Common and Rowles? These are some of the questions which a visitor from Macdonald receives from graduates residing and working in Trinidad and Tobago today. One cannot be sure exactly how many Agriculture and Food Science graduates from Macdonald there are in Trinidad, but according to Graduates Society records there must be at least 45. On a two-week trip in May 86 as External Examiner to the Crop Science Department at the University of the West Indies, I met more than a dozen of them at the University and in the Ministry of Agriculture, Lands and Food Production. Some of the former Macdonald people date from the late 1950s and early 1960s, such as Steve Redman, BSc(Agr)'57, and Mr. and Mrs. William Searl, BSc(Agr)'60, MSc(Agr)'66, and BSc(HEc)'62, respectively, all of whom work at the Central Experimentation Station at Centeno near Piarco International Airport. On the nearby Mauseka Road is the Agricultural Engineering Division of the Ministry, directed by Dev Duggal MSc(Agr)'70, and housing 10 engineers, including Patrick Jadoo, BSc(Agr.Eng.)'82, MSc(Agr.Eng)'84, and Fazal Mohammed, BSc(Agr.Eng) '85. Also on the Agricultural Engineering staff, but seconded to the Project Implementation Office are Winston Gibson, BSc(Agr.Eng)'77, MSc(Agr. Eng)'78, and Patrick Cambridge, BSc(Agr.Eng.)'79, BSc(Agr.Eng)'80. Leonard Archer BSc(Agr.Eng)'76 is there too.

Also working for the Ministry at other locations are Ron Barrow, BSc(Agr)'60, PhD '72, who is the Director of Research, Horatio Nelson, BSc(Agr)'67, MSc(Agr)'72, Samuel Howard, BSc(Agr)'65, MSc '68, Leela Rastogi, MSc(Agr)'84, and Simon Bedasie, MSc '86 to name some. There are also Macdonald graduates to be found in industry, such as Mike Percy, BSc(Agr)'61, who was with the university, Ministry of Agriculture, Eastern Foundry and Tracmac Ltd., before establishing his own engineering consulting office. Hugh Avey, BSc(Agr)'68, MSc(Agr)'70, originally from Baie d'Urfé, has been with the Federated Chemical Ltd. for 15 years, and his wife, Mary, BSc(Agr)'68, is the sister of Richard Bovell, BSc(Agr.Eng)'79. Richard lives now in Arima and manages the agricultural operations in Cocos Bay, Couva, and Icacos Point for the family. His father and mother George, BSc(Agr)'45, and Margaret, BSc(HEc)'44, MSc '46, live near Port of Spain. George sits in the Senate and the family runs sizeable industrial and agricultural enterprises in Trinidad and Tobago. Richard Bovell shocked his parents a little during the last Carnival in February when they discovered that he established a water




Trinidad and Tobago is not the only country hosting Macdonald Agricultural Engineering graduates. The world map shows graduates in every province of Canada and no less than 24 other nations.

coconut stand near the Port of Spain Savannah for two days. Richard explained that it was great fun, and he went home with a few extra thousands of TT dollars afterwards.

Most of the graduates that I met are doing very well in their careers, as some of the above titles show, and are happy to live in Trinidad. One or two persons visited have not been so fortunate lately. Leonard Archer, BSc(Agr.Eng)'76, for example, is recovering from his second coronary attack in five years, and Winston Gilson, BSc(Agr.Eng)'77 was in the Port of Spain Hospital for several weeks following a serious automobile accident which involved his car only. However, the prognosis is good for both of these individuals, and they are receiving very good physical and moral support from their fine families.

It was certainly a pleasure to see the influence of Macdonald through the talents and good works of these responsible agricultural professionals in Trinidad, and one cannot believe the warm hospitality of Trinidadians until one takes a trip there, contacts the friends of Madconald and others too, and then sits back and enjoys the socializing, entertaining, and dining pleasures which the citizens are so quick to provide. If you are personally acquainted with any of the above persons or others in Trinidad, you are urged to write to them giving news of developments at Macdonald and the whereabouts of class friends around the world. They would be immensely pleased to hear from you, as I can safely vouch.

# *Signs that Stray in the Night!*

**by Hazel M. Clarke**

Get the facts first but first get the facts — right — is a maxim that has been drummed into many of us attempting to convey news and information to the public. I am, therefore, somewhat hesitant to report the story leading up to a very sober presentation of a garbage can last April 1 (could the date be significant?) to Dr. Roger Buckland by the residents of Phi Upsilon Chi at 28 Maple Street. Following the unveiling of the garbage can, Dean Buckland presented the students with a sign (theirs, I believe) and a mild warning about signs and students that go astray in the night.

As the facts leading up to this presentation seem sketchy, vague, blurred — some might even say a blackout had been imposed — I can only report that Jim Donnelly from Port William, N.B., asked me if I would be present with a camera for an unveiling of a gift to the college at 12 noon sharp on April 1. This I did and while waiting for the Dean I was introduced to the 28 Maple residents (see accompanying photo). Harvey Macdonald from Victoria, P.E.I., was unable to be present as he could not miss classes. We chatted briefly about the fraternity house. The students told me that they have lived there since the fall. Somewhat concerned about the Journal being a family publication I asked what Phi Upsilon Chi meant. They didn't know; they just picked three letters. I wonder if I should still be worried?

Sandy MacQuarrie, who graduated in June, suggested that I write a story about 28 Maple as many interesting and important people had lived there over the years. He said it would probably conjure up warm memories except when graduates remembered the below zero winter weather and trying to heat the place. I thanked Sandy for his suggestion and, as I looked over the small but enthusiastic audience, I noticed Students' Council President Marc Vezina, partly hidden on the outskirts of the crowd. Wondering why he was not part of the "platform party," I asked him if he was pleased to see this excellent example of student interest in campus care (I guessed what the gift was that was concealed under the green garbage bag). At the time I didn't understand his somewhat light-hearted response. It didn't seem as sincere as Marc always was about student matters. He made mention of a group of students who had "vandalized" their fellow students property and stolen a sign."

I think he might have known more and said more but the ceremonies began. Craig Fawcett thanked everyone for coming and said, "We would like to present this gift to the college in appreciation of a good year socially as well as academically, we hope!" He thanked Peter Knox of Campus Care for his efforts, Sophie Blainville for the lettering, and the Dean for his suggestions as to how to improve school life. He also said that he was glad to have the sign back.

Dr. Buckland accepted the garbage can on behalf of the college with great pleasure and said he hoped that they would take better care of the sign so that it could be passed on to future generations of people living at 28 Maple. He also made brief mention of academic achievements!

I can see the garbage can from my window. It is well used and helping to keep our campus clean. In good spirits I trust the sign will "hangover" 28 Maple for years to come.


Dean Buckland, centre, receives, on behalf of the college, a green garbage can with gold lettering from, l to r, Sandy MacQuarrie, Bruce Thompson, Craig Fawcett, and Jim Donnelly.

# FUN FACT FABLE FICTION

**by Ralph H. Estey**
**Emeritus Professor**
**Department of Plant Science**

### Genesis Reinterpreted

As readers may have surmised, I find the Bible a fascinating book even though I am not a professing Christian. I always have at least one biblical reference on this page. The more fabulous the story, the more fascinating it becomes and the story of creation is, to me, the most fabulous of all. It has been subject to many interpretations so just for the fun of it, I'll add one of my own.

Reading the first two chapters of Genesis, one can see that God created three or four people and not just Adam and Eve. The first two may well have been a sort of two-in-one or half man and half woman. The basis for this thought of an hermaphrodytic person, perhaps created just for practice, is Genesis 1:26 ". . . And God said let us make man in our own image after our likeness, and let them have dominion . . ." Then in the next verse it is written, "So God created man in his own image, in the image of God created he him, male and female created he them."

To the Greeks, it was common knowledge that each of us was part of someone else. We had been divided and the search for a mate was a search for the other half. When the two natural halves met they would know each other. It would be love at first sight. This fable lingers to this day in reference to "the better half."

The second chapter of Genesis apparently deals with a different series of creative activities. This tells of Adam being formed from the dust of the ground and thus refers to a brown or black man because God would have used rich dark earth for such an important bit of work. Anyhow, after Adam had been created, God ". . . planted a garden eastward in Eden and there he put the man whom he had formed." This newly formed man had to be a vegetarian because it was not until some time later (2:19) that ". . . out of the ground the Lord God formed every beast of the field and every fowl of the air."

It should be mentioned here that the hermaphrodytic man was not made until all other living things had been created and God said (1:29) ". . . I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in which is the fruit of a tree yielding seed; to you it shall be meat." Obviously, God was not talking to Adam, when He said that, because Adam was told explicitly that he could not eat the fruit of all trees. Later, God said ". . . It is not good that man should be alone; I will make him an help meet for him." Consequently, He then proceeded to make all animals and birds and brought them to Adam, who gave each a name, but ". . . there was not found an help meet for him." (2:20) When God learned that Adam was not satisfied with any of the animals and birds, He created a woman whom Adam named Eve. Thus both the timing and the method of creating Adam and Eve was quite different from that of the two-in-one "man" mentioned in Genesis 1:27.

Biblical scholars have been puzzled about where Adam and Eve's sons got their wives. One possible answer is that they were daughters or granddaughters of God's first dual creation of man.

If I were an ardent feminist I would put emphasis on this plural creation of man ". . . Male and female created he them; and blessed them, and called their name Adam, in the day when they were created" (5:2) Because this, together with the references in Chapter 1, gives woman equal status with man and not just an after thought when Adam was found to be unhappy with his animals and birds (2:20-21).

### Lost at Sea

In 1940 the British government decided that Canada was the safest place to store its gold. On June 18, the passenger ship Niagara carrying eight tons of gold and destined for Vancouver struck a mine and sank when about four hours out of Auckland, New Zealand. Salvage crews eventually recovered 559 gold bars worth about a hundred million dollars but had to leave nearly half that much gold at the bottom of the sea.

### Foot Comfort

To get comfortably fitting shoes, buy them in the late afternoon when the exercise of the day has stretched the muscles to their greatest extent. Old Farmer's Almanac, 1903.

### Golden Age Humour

If intercourse gives one
thrombosis
While continence causes
neurosis
I prefer to expire
Fulfilling desire
Than live on in a state of
pshychosis

### The Gleaner

In the Union Churchyard, Town Point, Nova Scotia, there is a life-size effigy of a reclining woman asleep on some sheaves of grain. Her left hand is under her head, her right hand holds a sickle and there are sheaves of wheat across her waist. This beautiful, hand carved, white marble gravestone is in memory of a young Scottish bride who died before rejoining her husband in Nova Scotia. The sheer beauty of this unique memorial attracts visitors to Town Point where it is known as "The Gleaner."

### Human Fertilizer

After the Crimean War the bones of nearly 38,000 soldiers who died in, or as a result of, the battle of Sevastopol were sold by auction for use as fertilizer.

### Tongue Twister

According to the Guiness Book of Records, the world's worst tongue twister is: The sixth sick sheik's sixth sheep's sick.

# DIPLOMA CORNER

When the conversation gets around to sheep production in Quebec, and, despite the odds, there are a few keen producers in this province, it has to get around to Ferme Manasan, the large, attractive spread belonging to Robert, Dip '54, and Lois Laberge in Danville, Quebec. I have visited the farm often and always been impressed by the beauty and quietness found in that part of the Eastern Townships; I've also been impressed with this couple's ability, knowledge, and hard work that have enabled them to compete successfully in one of the more difficult areas of farming in Quebec: sheep and lamb production.

Robert and Lois Laberge began their farming business with Aberdeen Angus cattle; it was Lois who actually started them off in sheep when she bought a few purehead Hampshires. Though they still have top quality Angus, their main thrust is now in sheep.

Robert has also found time for work with organizations to improve sheep production. He has acted on the C.P.A.Q., the Canada Sheep Marketing Council, and is, at present, the President of the Eastern Townships Sheep Breeders Association.

I recently interviewed Robert Laberge for our first Diploma Corner featuring a Dip graduate involved in sheep production.

***Henry Garino*** *Bob, you are a well-established sheep breeder and as such your understanding of the Canadian and Quebec sheep industries is highly valued. What have been the major happenings in sheep at the provincial level over the years.*

**Robert Laberge** Perhaps I should start by giving a short history of sheep production. Quebec farms of the 1800s are reputed to have carried over 700,000 head of sheep. Every farm had a few in the back shed. Then over the years specialization took hold, mainly in the dairy industry, and sheep numbers plummeted to some 30,000 by the early 1970s. This created considerable pressure on the local fresh lamb market, demand was keen for the few light lambs available in the Christmas and Easter periods, and prices were interesting. There was a corresponding demand and excellent prices for breeding animals. No quality heavy lambs were offered at that time as producers were in the habit of putting lambs out to pasture and selling 70-pound grassers in the fall for very low prices.

Then came the revolution! Farmers were looking for alternatives to dairying, and the government for ways to increase self-sufficiency. Everybody got into the act. Incentive programs followed, more than doubling our provincial flock to 80,000 in five years which put a tremendous strain on our thin light-lamb market. Once again the government had put the horse behind the cart and instead of stimulating production through improved marketing and better prices, it chose to encourage producers to swamp the market by increasing their productivity at all cost. This strain on prices stimulated frustrated producers to give themselves a marketing board full of ginger, promises, and good intent. But after three years of board existence we find our markets even more erratic and unpredictable, and our producers even poorer to the tune of $1 per lamb check-off. Meanwhile, sheep numbers were dropping then levelling off in the rest of Canada, and the general consumer market (which has little to do with our local fresh lamb market) was furnished with imported frozen lamb mainly from New Zealand. The last few years have seen a considerable increase in chilled and fresh imports from Australasia, and some fresh lamb from the United States, and if it weren't for our worthless Canadian dollar, our southern neighbours would have long ago swamped us out of business.

***Henry Garino*** *What is your management philosophy behind your genetic, nutritional, and marketing programs?*

**Robert Laberge** Roughly a third of our 450 ewe flock is made up of registered Hampshires. They are big, very muscled, fast growing and efficient converters, making them ideal for use on maternal breeds as a terminal cross. Their meat to bone ratio is unexcelled, and we find that the lambs are ready for market from 40 to 120 pounds, making them very flexible. Besides the usual structural correctness, we have put selection pressure on muscling, and length and smoothness of body to ensure easy lambing. With all the illicit crossbreeding going on within the purebred industry, it has become difficult lately to find suitable rams that breed true to type, especially in the U.S., and we have been closing our flock more and more.Our commercial flock is made up mainly of percentage Hamps, with a number of females containing one quarter or one eighth Finn blood, the result of using half Finn rams for three years. We found the Finn blood to be very dominant, specially in its effect on carcass quality, and anticipated improvements on lambing percentage and milk production have been slight. Ironically over the years, under similar management, we have had better lambing rates (1.4 to 1.8) from our straight Hamps than from our crossbreds.

As we are using several old buildings to house our flock feeding is basically baled hay, with additional meal during critical periods such as post-lambing. We use the cheapest grain,

balanced with soya, minerals, and vitamins. Lambs are on a very high-protein creep from their second week until marketed. I should add that barley is favoured to finish lambs when it is competitive, and we have found no advantage in using molasses. Summer time is pasture time for all adult sheep and replacements. For the last few years we have found the early winter market to be the most reliable, and so we breed our ewes, naturally, to lamb in December and January, with the usual slow pokes dragging into February and early March. We have no more than 1 to 1½ per cent open females. Last year our peak day was December 22nd with 37 lambings. Since these lambs are marketed at 6 to 10 weeks, weighing 50 to 60 pounds, they are sold from early February right on to Easter.

***Henry Garino*** *What sort of policies would you advocate to increase the efficiency and thus competitive position of sheep producers in Quebec?*

**Robert Laberge** I hate to admit this but to stay in business lately we have had to adopt an extensive, cut-the-corners, very little fertilizer kind of production policy, which doesn't necessarily make very good reading. There are a number of new-fangled tools being bantered about and offered to sheep producers by the scientific community. Unfortunately, many are not proven out, practically or financially, some are not market-adapted, such as early weaning and artificial raising of lambs for the new-crop market, and nearly all are labour-intensive. This will surely put me in the old fogey category, but I am not convinced that we are making full use yet of all the older proven techniques such as rotating pastures, good parasite control, disease control such as foot-rot, handling deficiencies such as selenium and magnesium, growing out replacements, care of rams, and the list goes on. Perhaps the sheep industry is about where the dairy industry was some 30 years ago, when average production was flirting 5,000 pounds. Many like to say that A.I. and genetics were responsible for the drastic improvement that occurred, but I think it's mostly due to dairymen simply learning to feed and care for their cattle property. Remember when the cows got the hay, cut in August and the young stock got the straw?

To be more explicit on policies that would benefit the industry, why don't we improve upon and stress what we DO know? Stress efficiency. The ROP program should consider feed efficiency starting with size of ewe and including feed conversion of lambs.

Improve protection against predators. At present municipalities are responsible for 75 per cent of dammages, only if caused by dogs. Obviously they automatically blame coyotes, from which we are not protected.

Do useful research on immediate problems, such as the hard udder syndrome, late lamb growth. With reservations, get marketing expertise from government or industry, as farmers have proven to be totally ill-equipped to handle the job.

Set-up a model farm to show us how all these wonderful new methods can be made to work. Sheep producers lack good, modern, well-informed

*(Continued on page 29)*

# Foliar Analysis and Fertilization of Declining Maple Trees

**by Professors A.R.C. Jones and Willy Hendershot, Department of Renewable Resources**

Since 1978 maple producers in southern Quebec have reported that maple trees of all sizes were drying out and dying in small groups for no apparent reason. By 1985 this "decline" of sugar maple had reached serious proportions and is most severe in the Appalachian regions of Quebec (Beauce, Megantic, Frontenac, and Arthabaska Counties). It is presumed that much of the dieback is related to nutrient deficiencies or imbalances in the trees caused primarily by atmospheric pollution.

To determine some of the nutrient deficiencies or imbalances in the leaves of sugar maple trees that are beginning to show some decline symptoms, Macdonald College is prepared to analyze the major (NPK) and minor nutrients (Ca, Mg, Mn, Zn, Cu, and Al) found in samples of foliage collected in the early fall by the landowner from the mid to lower crown areas of the tree (for a fee of $25 per sample). The analysis of the foliage will be made through the fall and winter months and fertilizer recommendations, to attempt to correct the perceived deficiencies, will be sent out with the foliage analyses results in the early spring. It is expected that if a correct analysis of the foliage is made and a proper "diagnostic" fertilizer applied, then the trees treated should be greatly aided by this treatment. No guarantee is, or wil be, given that the fertilizer will necessarily correct the decline symptoms of the tree. Only slightly declining trees should be selected, since trees that are more heavily defoliated have little chance to recover because of the extent of the decline symptoms. In the description which follows it is advisable to collect leaves only from the lower crown of category 1, 2 or 3 type trees.

**Tree Categories** (Mader and Thompson, 1969; Soil Sci. Soc. Amer. Proc Vol 33:794-800)

1. Normal trees. Foliage full size and rich in colour. No dead twigs or branches.
2. Foliage abnormally small, curled, thin, yellowish, or otherwise weak in appearance, but not conspicuously so., No dead twigs or branches.
3. A tree similar to 2, except that it has a number of dead, that is, bare twigs in the top of the crown. Such bare twigs perhaps are in a dying state, and hence represent one of the early symptoms of die-back.
4. Trees with dead branches for no apparent reason, but such branches to constitute less than half the crown. A "branch" should be at least 3 or 4 feet long and there should be two or three dead branches before the tree is placed in this class.
5. Trees with over half the crown dead.
6. Crown dead, except for small adventitious branches, usually to be found at the base of the crown.

**Sampling Techniques**

Three (3) healthy or slightly declining (category 1, 2 or 3) sugar maples about 50 metres apart from the same soil zone should be sampled. Thirty (30) fresh leaves from each of three trees should be collected from the lower to mid-crown areas from mid-August to mid-September. Major changes in soil material (i.e., sand, silt, clay, etc.) particularly if there are major differences in the condition of the trees in different sections of the sugarbush, should be sampled separately. The leaves should be placed in separate, numbered plastic bags (1. 2. 3.), carefully identified with the owner's name and address and mailed at once to **Macdonald College Soil Testing Laboratory, c/o Macdonald College, Box 197, Ste. Anne de Bellevue, Quebec, H9X 1C0.** The trees should also be similarly numbered in the sugarbush so that they can be identified next spring when the appropriate fertilizer is applied according to the results of the foliage analysis. Between the time of collection and mailing the leaves should be kept in a refrigerator.

The foliage analyses will be reported and the recommended fertilizer treatments sent out as soon as possible. The fertilizer recommendations will apply only to the trees from which foliage was collected, but if all three show the same analyses and nutrient deficiencies, there is a good chance that the fertilizer recommended will benefit that part of the sugarbush which adjoins or is similar to the area sampled. Follow up studies on the results of the diagnostic fertilization are planned so be sure to identify your trees carefully.

Fertilization is not a long-term solution to the maple decline phenomenon but should help to keep trees healthy until atmospheric pollution is curtailed.

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*(Continued from page 28)*
fellow-producers to copy from.

***Henry Garino*** *How does the future look?*

**Robert Laberge** This, of course, is the toughy. Although lamb does compete with other meats for consumer attention, our per-capita consumption is only about three pounds, so that if Canadians could be convinced to replace one pound each of chicken, beef, and pork with lamb, we would double our demand, and these three productions would lose less than two per cent of theirs.

Technically there are several exciting and promising things on the horizon, which no doubt will be improved and adapted over the next few years. Among these are A.I. of sheep, the freezing of semen, and the control of oestrus.

The bottom line, of course, as in all farm products, hinges on the outcome of trade talks. **Qualitywise** our Quebec lamb cannot be beaten by any the world can offer, but **pricewise** there is no way we can compete with a inferior or highly-subsidized product. We will continue to furnish our highly selective but restricted ethnic market with our premium product, but in order to expand we must enter the price-competitive heavy lamb market with the western provinces and the U.S., and eventually other countries. And I must end on a sad note: without our stabilization insurance program this would be unthinkable, and our industry would return to the early 70s.

# Seeking Solutions

# Biotechnology at Macdonald

**by Dr. Robin K. Stewart**
**Associate Dean, Research**

If you want to start a fight, ask two scientists to define biotechnology!

Personally, I accept a definition something along the lines of "the use of organisms to help mankind." Molecular biologists will take umbrage and say I should specify genetic engineering, microbiologists will want to restrict the organism component of the definition to microbes, and ardent feminists will object to "man" kind. You might even say that my definition of biotechnology includes all of our work at Macdonald, and I would not object to that. On campus we do have ongoing research projects which fit into many parts of the biotechnology spectrum, from basic studies on meiosis to applied work on feeding cattle.

In the Department of Microbiology, Dr. Duane Martindale has isolated genes from a protozoan, and these genes have a component which is common to evolutionary distant (unrelated) organisms. This is of great significance to the study of fundamental cellular processes such as meiosis and mitosis.

At least two workers in Animal Science have commitments to biotechnology. Dr. Elliot Block is injecting synthetically produced somatotrophin (growth hormone) to lactating cows to increase milk production. The hormone is produced by genetically altered microbes so that the bovine hormone can be produced in a pure form in large quantities much more efficiently than if it had to be extracted from the pituitary glands of cattle.

A recent addition to the staff of the Animal Science Department is Dr. Urs Kuhnlein, who has been publicised as attempting to produce a "super chicken." What he is doing is developing techniques to allow the transfer of genes into breeding lines of poultry so as to have them resistant to avian leukosis. This disease is caused by two types of virus, and broadly speaking the research strategy is to have the chickens produce, by themselves, the virus envelopes (or coverings) which do the chicken no harm but give them immunity to the invading virulent virus particles.

In Agricultural Chemistry, Dr. Inteaz Alli is manipulating microorganisms to improve the ensilage methods for high-moisture forage. Although he is not genetically manipulating the organisms, he is establishing the conditions which allow rapid microbial production of lactic acid in ensiled forages. This production of lactic acid is particularly important for preservation of the silage and is essential for maintaining high nutritional values.

There is a considerable amount of activity in biotechnology in our Plant Science Department, with at least five professors being heavily involved. Dr. Bruce Coulman is screening red clover using cell culture techniques to find lines of clover resistant to *Fusarium* root rot. Dr. Danielle Francoeur-Donnelly is also using cell culture techniques to identify lines of American ornamental dogwood which are tolerant or resistant to anthracanose fungus, that is becoming epidemic in western Canada and could potentially cause the same severe damage to eastern Canadian trees.

## To Catch a Thief

The technique of setting a thief to catch a thief is being exploited by Dr. Richard Reeleder and Dr. Alan Watson in their work on Biological Control. Dr. Reeleder has identified microorganisms which act as antagonists to "pest" organisms such as fungi, which cause plant disease. The antagonists work in a number of ways to reduce disease incidence. They may out compete the pathogens, they may parasitize them, or they may even produce material toxic to the pathogens. Dr. Reeleder has another little twist to his approach in that he is attempting to develop antagonists which are resistant to fungicides so that they may be used in combination to control diseases.

Dr. Watson is using a somewhat similar approach in his study of bioherbicides. These are fungi which are released in large quantities into weed infested fields and have been likened in their use to the chemical herbicides. That is, they do not establish themselves as in classical biological control, but are applied only as necessary. Dr. Watson's research group has discovered a number of such organisms which are effective for specific weeds and there is currently a patenting arrangement being made for one of these bioherbicides.

## A Step Further

Another biotechnology role of fungi is the interest of Dr. Donald Smith of the same department. We all probably appreciate that atmospheric nitrogen is made available to legumes by means of nitrogen fixing bacteria, but Dr. Smith's work goes a step further in that he is interested in the transfer of fixed nitrogen from the legumes to associated grasses by means of mycorrhizal fungi. These are fungi on the roots of plants, and Dr. Smith suspects that there may be movement of nitrogen from the legumes across the pipelines of the fungal strands which are closely interwoven with the adjacent plant roots. Once this movement is established, the obvious biotechnology strategy is to improve the efficiency of the transfer.

Finally I would like to point out some of the activity in our own Department of Entomology. Dr. Bill Yule is interested in the biological control of soil insect pests and has recently demonstrated that simple laboratory formulations of a pathogenic fungus are very effective at killing a wide range of the pests. The research approach is to determine the range of species which is affected by the fungus and to develop strains which will be specific to certain pests. This approach is essential as we are very sensitive to the possibility of a broadly pathogenic organism affecting beneficial soil organisms.

I must defend myself in advance from attack from my colleagues at Macdonald who have not been mentioned in this brief introduction to our biotechnology activities. We do have a lot going on in the area, and I have only highlighted some of them.

# Food Additives in Perspective

**by Professor F.R. van de Voort**
**Department of Food Science**
**and Agricultural Chemistry**

*(This text is an edited version of a presentation at the 18th annual seminar of the Montreal Section of the Canadian Institute of Food Science and Technology on Food Additives and Preservation held November 13-14, 1985. The opinions expressed are those of the author, and not of the Institute).*

Food additives have been and continue to be a concern to the consumer, and the following discussion attempts to place food additives in perspective from the viewpoint of a food scientist. We must begin, however, by looking at the food system from a social context; that is, the impact of social changes and the effect they are having on the food industry and, in turn, how the food industry is affecting our social structure. We can summarize the obvious:
(1) Women currently make up a significant and growing part of the work force, and the traditional domestic role attributed to women is disappearing;
(2) There are significantly more single households, both male and female;
(3) Fewer people have culinary skills or the desire to spend time on food preparation;
(4) A large segment of the population is beginning to enter middle age, with its attendant concern with health and fitness.

To a large extent the entry of more women into the work force and the development of highly processed foods are closely linked. Convenience foods developed in the 50s and 60s originally appeared more as novelties than serious contenders for a major share of kitchen cupboard space. The time saved was marketed as bringing more leisure time to the housewife, but this has, in turn, evolved into working time. The original novelties, such as Jello, Tang, and cake mixes, have become traditional products, and today the developmental emphasis has shifted to entrees, low calorie products, and complete meals. The industry is making a concerted effort to produce varied and familiar products which compete well in both cost and quality relative to their home-made counterparts. It has taken some time for these developments to take place, but today everyone is accustomed to and utilizes labour-saving prepared foods.

Today the average supermarket contains between 5,000-8,000 food items on the shelf, and average meal preparation time has dropped from five hours to 30 minutes. In essentially one generation we have gone from comparing products to "mother's cooking" to comparing the product of one company to another and hope the product can be readily microwaved. We have accepted the concept of manufactured food, expect that we will have to prepare it ourselves, and expect the operation to require little time or effort. Like credit cards, this trend is not likely to reverse itself, and the continuation of the social revolution will lead to demands for more convenience/processed foods with more variety.

## A Quality Product

Food additives are an integral part of processed and convenience foods as their use is often paramount to obtaining a quality product. Although consumers make the indirect demand for processed foods requiring additives, they simultaneously question their use and have difficulty understanding the need for them. If every consumer were a food scientist and had an understanding of food chemistry, basic food processing operations, and food microbiology, we would have little trouble explaining. Consumers are suspicious of food additives for a variety of reasons, most of which spring out of ignorance and the suspicion of the term "chemical." The public faith in the chemical industry has waned dramatically over the past 10 years through a variety of incidents involving toxic chemicals in the environment, feeds, and foods. Food additives suffer from guilt by association and from past controversies relating to colours and artificial sweeteners. In addition human nature calls for a healthy suspicion of situations where one is not in control, such as when an operation as fundamental as food production is turned over to a business enterprise.

The controversy surrounding food additives is not likely to disappear; it will continue to be an issue and will, to some extent, serve to prevent complacency in both industry and government. Let's look at some reasons why the issue will not die based on a survey done in May 1985 for *Good Housekeeping*. Seventy-six per cent of the people surveyed were extremely concerned about food additives and 20 per cent were somewhat concerned. Put another way, avoiding harmful additives/preservatives/chemicals was at the top of the list before freshness of foods, sodium content, sugar content, calorie content, and high food prices. The survey also indicated that the following beliefs were widespread:
(1) that natural foods are better than processed foods (75%);
(2) that chemicals and additives can cause cancer (82%);
(3) that natural foods are more nutritious than other foods (63%);
(4) that the statements "no artificial preservatives/colour/flavour" have a positive effect on the purchasing decision.

In essence, today's consumers want high quality food products on the one hand, but relate quality to the absence of additives on the other. These two desires do not go hand in hand and, in reality, quality as now perceived by the public is directly related to the presence of food additives. There is no way around these common beliefs except through a long-term information program to inform the public about the facts as they relate to the food processing sector through public education. The Department of Health and Welfare has taken this task and produced a Guide to Food Additives, a Pocket Dictionary of Food Additives, and a booklet on Health Protection and Food Laws. An educational program has also been prepared for the school system and should lead to better public understanding of the role of food additives with time.

Putting aside the question of ignorance, there is little public appreciation

of how different industrial food production is relative to the home operation. Some of the obvious differences are:
(1) The scale, logistics, and time available for preparation and processing;
(2) The need for an extended shelf life for a product to go through the distribution system;
(3) The impairment of colour and texture through processing;
(4) Health hazards associated with improper handling or storage of food products.

Additives essentially provide the functional tools to carry out large scale processes and allow the processor to maintain many of the quality factors which are commonly associated with a specific food product. A simple example would be the preparation of applesauce in the home, where an old trick is to add lemon juice to the cooking water to prevent enzymatic browning. Other operations commonly carried out at home include:
—Addition of egg yolk to vegetable oil and vinegar to make a salad dressing (emulsifiers);
—Addition of rice grains to salt to prevent the clumping of salt (anticaking agents);
—Addition of sodium bicarbonate to raise dough (acid reacting materials);
—Addition of pectin to produce a firmer gell in a jam or jelly (thickening agent).

The average person would not think they were using food additives but would consider them essential to producing the food product or property they had in mind. What differentiates additives from conventional ingredients is that only the active agent is used and an analogy can be made here to drugs, which are generally purified ingredients from a natural source, copies thereof, or synthetic compounds. Because of their rather pure form, food additives are considered to be chemicals and treated in a manner similar to drugs, as their ingestion in uncontrolled amounts may have adverse effects on the system. In fact food additives are treated under the same legislation, the Food and Drugs Act, and are required to be of a strictly defined purity much like that of drug components. In the Act, food additives are defined, listed with amounts and areas of use stipulated. The legal definition of a food additive is as follows:

"Any substance, including any source of radiation, the use of which results or may reasonably result in it or its by-products becoming a part of or affecting its characteristics."

This definition does not include:
— common nutritive ingredients — sugars, starch, salt, etc.;
— vitamins, minerals, amino acids;
— agricultural residues;
— packaging materials and components thereof;
— drugs administered to animals.

In addition additives are permitted in food products on the principle that three basic premises are met:
(1) that the additive is safe based on toxicological data as it relates to the relative consumption of the product it is incorporated into;
(2) that its use is non deceptive — i.e., that its use does not deceive the consumer into believing the quality is better when it is not;
(3) that the consumer benefits from the use of the additive in the food product.

## Fifteen Categories

The Food and Drugs Act lists additives under 15 functional categories, with some additives falling into more than one category. The functional classification is a useful approach because it quickly indicates the purpose of the additive. Of the 15 categories, most require a basic knowledge of processing or the specific properties of a product to appreciate their usefulness and are difficult to explain without some understanding of food chemistry. Table 1 presents a summary of the major categories of food additives in terms of functional heading with an example additive.

Going through the list, in brief, the preservatives are important in extending shelf life, sorbates to retard mould spoilage, and butylated hydroxyanisole (BHA) to prevent rancidity in fats and oils. Flours bleach naturally and the doughs are strengthened with time; however, chlorine can speed up this process and provide a more uniform flour for the baking industry. Starch is an important ingredient in many foods, usually for its textural characteristics; however, it is not usually suitable in its natural form because it stiffens (retrogrades) quickly. Modification is required to control this undesirable property and give special properties such as freeze/thaw resistance to frozen foods. In the baking industry, yeasts are used extensively to provide carbon dioxide and they need mineral nutrients as would a person, hence a special category is set aside for their micronutrient needs. Going back to fatty foods, rancidity is often catalysed by metal ions, and we require agents which are capable of grabbing (chelating) the ions to prevent their deteriorative action. This innocuous compound intimidates simply by its name. The extraction solvent category is an important one, because we use solvents to extract fats from oilseeds and, in the example listed, methylene chloride is used to extract caffeine from coffee beans to produce decafinated coffee.

Calcium chloride, a simple salt is used extensively to firm vegetable products after heat treatment to restore some of the crispness. One of the best example is in pickles, where a major quality attribute is its crunchiness. Enzymes are used to make cheese (rennet) and a number of other operations such as sugar from corn starch and to tenderize meat cuts. Colouring materials are used to give life to many products such as desserts and candies. Glazing and polishing agents perform a similar appearance function for candies and apples. Non nutritive sweetners are very important and aspartame has filled a need very well. Consumers want an alternative to calorie filled sweetners for diet purposes, and there is also a medical

**Table 1. Additional functional categories of food additives.**

| |
|---|
| Preservatives (Sorbates, BHA) — mould control/rancidity |
| Bleaching Agents (Chlorine) — strengthen dough |
| Starch Modifying Agents (Hydrochloric Acid) — freeze thaw resistance |
| Yeast Foods (Zinc Sulphate) — micronutrients |
| Sequestering Agents (Ethylenediaminetetraacetate) — metal ion control |
| Extraction Solvents (Methylene Chloride) — decafination |
| Firming Agents (Calcium Chloride) — texture |
| Food Enzymes (Rennin) — cheese manufacture |
| Colouring Agents (Caramel) — appearance |
| Glazing and Polishing Agents (Gum Arabic) — candy gloss |
| Non-Nutritive Sweetening Agents (Aspartame) — dietetic products |
| Miscellaneous Food Additives (Nitrous Oxide) — aerosols |

need for diabetics. The last category is termed miscellaneous for a good reason, because it contains some oddball functions such as aerosol propellants and antifoaming agents.

Each action described is a function required in some food product to produce what is perceived to be a desired quality aspect. Each additive listed in each functional class has been tested and sanctioned to be safe toxicologically, beneficial, and non deceptive. Even so, the public is still skeptical and 60 per cent of the survey respondents said they try to avoid buying foods that contain preservations, artificial flavours, and colours. The food industry is aware of these trends and has, of late, been marketing heavily along the natural/no additive line, thereby contributing to the lack of consumer confidence.

The public wants quality and absolute safety and is generally not aware of the basic risk/benefit premise which governs the use of food additives, i.e., the balancing of potential risk of the use of an additive against its benefits. We individually make risk/benefit judgements every day: crossing the street, smoking cigarettes, taking an airplane. Few of us trouble to calculate the odds of the risk when we take an airplane. In the case of food additives, the risk has been quantified to the best of our technical and toxicological knowledge, usually through animal feeding trials. Both an "effect-level" and a "no effect level" are determined, which, in turn, is divided by 100 and adjusted further to a maximum dietary level in relation to the frequency of ingestion of the target food.

Hence the consumer is protected by legislation, plus the continual monitoring and updating of scientific information regarding food additives. In addition legislation exists to inform the consumer about the food product. The Consumer Packaging and Labelling Act and Regulations under the jurisdiction of the Department of Consumer and Corporate Affairs serves the consumer by defining the information required on the label associated with a food product, including common name, net quantity, address, list of ingredients (including food additives), and the shelf life if less than 90 days.

Through such information the consumer has the ability to make an informed judgement as to whether to consume the product on the basis of ingredients, nutritional claims, and the additive content. The *Good Housekeeping* survey indicated that consumers do read the labels, with 80 per cent rating the information on the labels as being important, with 34 per cent noting they always use the information to aid in making a purchasing decision, 37 per cent frequently and 19 per cent occasionally. Interestingly enough 87 per cent disagreed with the statement "I never buy foods that contain artificial ingredients," although about 50 per cent stated that they do worry about using foods with artificial ingredients. The bottom line appears to be that at present consumers purchase foods containing chemicals because they are willing to trade off the benefits of the additives for the perceived risk, although this attitude may change in the future.

## Well Established Legislation

Food legislation protecting and informing the consumer on the one hand and guiding and restricting the processor on the other is therefore well established. In terms of expanding the permissible list of food additives, the protocol for petitioning for such changes exists; however, the potential for change is greatly buffered based on the present Canadian guidelines. The frivolous application for the use of new food additives is remote, the onus being on the petitioner to provide safety evidence, analytical methodology, and to prove its direct benefit as per the definition of a food additive. The cost of presenting a formal petition is prohibitive in terms of scientific proof required, and there would have to be substantial benefits derived to make such a petition worthwhile. Hence major changes to the additive list will be few and far between in the future and, if they occur, they will be thoroughly scrutinized before approval.

Returning to the survey, one of the most significant findings is that consumers are sufficiently troubled by chemical preservatives that they are willing to consider almost any alternative to their use. When asked if they preferred chemicals or irradiation as a means to preserve food, 44 per cent said they did not know enough to judge, 27 per cent said they wanted neither, and 23 per cent indicated they preferred irradiation. Only 3 per cent indicated they preferred additives. Overall indications were that consumers are more concerned about additives than processes they know little about.

This reintroduces the topic of irradiation which by definition is also considered a food additive. The inclusion of irradiation as an additive in our legislation goes back to the original research carried out about 30 years ago when irradiation was being assessed as a primary processing operation much like canning. The main concerns at that time were high dose rates, our lack of understanding about the resulting chemical changes in food, and the potential for the formation of toxic compounds. Substantial progress has been made in understanding the irradiation process and its limitations, which are essentially related to textural and organoleptic changes. The safety of the process is no longer in question, and the philosophy at present is that irradiation will serve a very useful function as a shelf life extension process rather than a preservative process. Much of the development potential of this process has been held back through its linkage with radiation and the connotation which that word carried.

Canada is the world leader in the design, manufacture, and export sales of Cobalt based food irradiators. Food irradiation has been recognized as a beneficial process in many countries in the world and is in the process of being considered as the only viable alternative to chemical agents for insect disinfestation of foods. Irradiated foods are successfully being marketed in various countries in the world; however, Canada lacks credibility in selling its irradiator technology and expertise by restricting the process at home. The evidence is available to define food irradiation as the process it is, rather than calling it an additive which it is not. The bias against additives may well work toward legislative and public acceptance of food irradiation.

As noted earlier, the survey indicated that the terms additives and processing have acquired a negative connotation and are often used as terms opposed to "natural." Today natural implies "the way God intended it," perfect, harmonious with environment. The majority of the public is so removed from nature that we can

romanticize it and forget that nature is cruel and unforgiving. We forget that most of man's efforts have been directed at conquering nature or harnessing her resources and food additives and food processing are the tools we have developed to extend the bounty of nature to more people for a longer period of time.

I do not subscribe to the notion that the standard supermarket fare is the meal for everyone or that no alternative should exist. There is a natural/organic/health food movement which caters to a segment of society which has an individualistic opinion of what is good or bad about the food system. As a scientist, I can quibble with the premise some of the products are sold under; however, my basic philosophy regarding the adherents of health foods is that it is difficult to argue with true believers. As long as there is no harm done, and the products are safe and controlled by the same legislation as the conventional food supply, a portion of the population is alleviated from needless worry. Hence the skeptic can consider the health food field to be a fringe market preying on the concerns of the wary, or the believer can be seen as providing a need. In fact the issue becomes clouded as major corporations themselves attempt to cash in on a successful sector of stressing "no additives" and "natural." Aggressive marketing of this nature is, in part, leading to a continuing questining of the "safety" of the food supply and giving processed foods a poor name they certainly do not deserve.

In the survey consumers were asked to relay any message they wished to food technologists, and the message basically was "use fewer chemicals or no chemicals in our foods." Seventy-five per cent suggested "develop a way to have fresh foods without preservatives" and "give us nutrients and vitamins, but no chemicals." To anyone knowledgeable in the basics of chemistry, they will quickly recognize the dicotomy of the latter statement, which indicates nutrients and vitamins are not considered to be chemicals, which, of course, they very much are. These comments indicate the no win situation the processor, technologist, and scientist are in and why, unless we can educate the average person, the controversy will continue *ad infinitum*.

In the end the key to the additive question is public faith in government and industry and the recognition that there is no malintent by either party to the public in general. Canada without question has one of the safest, most varied, and plentiful food supplies in the world. Significant contributors to that safe and varied food supply are food additives. These compounds are regulated federally and the consumer is protected and informed through labelling to make intelligent decisions about the products he or she buys. We are fortunate to have the right to question and to be vigilant about such matters which, in turn, guarantees that a balance for the better will be maintained at all times.

**References**

Sloan, E. Chemical Confusion, 1985. Food Engineering September 1985.

# P.S.

### IN TOUCH WITH THE CLAN

I have been putting off writing a note to the Journal for some time. I do enjoy the current format that combines a lot of the Mac I was part of and the new up rated Mac. The Clan feeling is still there underlying whatever changes have gone on.

The urge to write was triggered by the picture in the May '86 Journal that included Jim Cooper and Angus Banting who both helped mould my engineering expertise back in the early '50s when Agricultural Engineering was not the popular option it is today.

The IDF conference in Auckland brought John and Kay Moxley to New Zealand and a far too short get together to renew times past and present. Murray and Nel McEwen popped in as well to enjoy some of our January summer weather. In spite of being remote, old friends from Mac appear quite regularly.

Mary and I have been in New Zealand since '71 when I stopped helping design airplanes and came back to agriculture. I am currently superintendent of the largest Ministry of Agriculture dairy lab in New Zealand ensuring that our dairy exports are true to label and safe to eat. We hope to get back in 1987 for my 35th reunion.

Keep the interesting articles and news coming as it keeps us in the remote parts of the world in touch with the Clan.

**Jim Currier,** BSc (Agr) '52.
Glenfield, New Zealand

### More Information Next Time

I was extremely pleased to note in your May 1986 issue the quote from my article published in the January 1986 issue of *NSAC Alumni News*. For obvious reasons you have put the emphasis on the Brittain Memorial Fund. What would have been more helpful to me, however, as Curator of the Entomological Museum, would have been some elaboration of the Museum proper, its new facilities, and the computerizing of both our wet and dry collections while it is still a relatively small sized museum, i.e., under 20,000 specimens.

On the other hand the whole matter made me realize again how informative *"The Macdonald Journal"* is (p. 14 of the same issue Hill's article; Professor Hill was my academic advisor at Mac), and therefore I am attaching a cheque for a personal subscription.

**Jean-Pierre R. Le Blanc, PhD '82**
**Associate Professor and Curator**
**Entomological Museum, NSAC.**

### The Early Days of Rugby!

It was with great interest that I read Bill Tierney's article on Mac rugby over the years. As a Macdonald High School student who played for the Mac squad in 1966 and continued to play whilst studying at McGill and later at U. de M., it would have been nice to have had some recollections of the early days when rugby started at Macdonald. It would have been nice to read of the club's founding by the two expats, Alex Shoemacher and Tony Johnson, the scrum rushes led by that Toni Shori, Roger Ramsay duo, and perhaps a tale or two about rogue Dave Cassens. Then there was that hooker — that indominable terror Stan the man Hancox who provided the team transportation in his 50 foot hearse. They said that he was only slightly mad!

The team progressed from reject soccer team shirts and socks to a more enlightened era. Bill Murray, the Giraffe, Dick Esdale, Dick Whittaker, Billy Oliver, les frères Millette, Scottie, the Basson boys were only a few of the enlightened ones. We even managed to pinch a few of the armadillos from Bobby Pugh. Wasn't the Peacock such an armed beast at one time? Before, that is, he turned into a naked one!

Yes things progressed. There were massive beer parties at the CC, ostensibly to raise funds for some good cause which ultimately turned out to be some sort of illegal or debauched affair — of course, still a good cause. Wasn't it the young Schofield boy who dared to come to one of our parties wearing one of our newly acquired and geniune rugby shirts; both he and the shirt were pretty good dusters in short time. The ultimate supreme you could call it.

There were the trips to York, the Maritimes, and Quebec City. The annual slog down to Dartmouth for their home-coming was not to be missed. W.A.G.T.B. Of course the present day teams' trips to the continent for a little tour are not to be scoffed at. Progress.

Rugby has become an institution at Mac and in Ste. Annes and long may it continue to be so. The continuity and overlap of the various player eras was such that there was never a break in the player spirit and ethos. Like old soldiers, rugger players never die — they only smell that way.

**Peter C. Baker**
**Transvaal**
**South Africa**

## BOOK REVIEWS

**CORKSCREWS IN THE KITCHEN**
**A Gateway to Wine & Food**
**by Arlene Taveroff**
**Kylix International, Montreal**
**$12.95**

Written in a breezy, informal style, this recent publication by Macdonald, graduate student Arlene Taveroff, B.Ed'69, BSc (FSc)' 83, introduces the reader to the world of food and wine. We are then taken on a tour of wine producing areas, followed by a collection of the author's recipes.

The first section, on matching food and wine, begins with a short but very interesting chapter on the perception of flavour. The rest of the section is devoted to explaining the interactions between wine and food, discussing why wine and cheese relate so well together. Finally, the flavours of the various types of grapes that are made into wine are described.

The next section takes the reader on a tour of wine producing regions and countries. This fascinating part of the book explains how local foods have come to be associated with the wines produced in the region: light Alsatian wines with the heavy foods of the area, the flavorful wines of Bordeaux complementing the lamb and game that are the mainstays of the local diet. Although most of the major European areas noted for the production of wines are covered, a surprising omission was the food and wines of Burgundy.

The book ends with a short section

on cooking with wine and menu planning, followed by a varied selection of recipes and suggested wines to complement them.

Although most of the terminology used by wine connaisseurs is explained fully, there are occasional lapses. These tend to occur when the author drops the informal style found in most of the book while explaining some of the more subjective terms used to describe the flavour of a wine. Aside from this minor fault, the book would be a welcome addition to the kitchen of anyone who enjoys serving wine with their meals. It contrasts greatly with other books on wine that I have read which tend to be very dry, pretentious tomes that are read once and then put away forever.

**John Marrett**

**CITY CRITTERS**
**How to live with urban wildlife**
**by David M. Bird Cartoon Illustrated by Sandra Letendre**
**Eden Press**
**116 pp., $8.95**

When a scientist who is internationally known as an authority on birds writes a book about urban wildlife, the potential reader may be excused for suspecting that it will be overloaded with information about his feathered friends. Such is not the case with Professor David Bird's charming book "City Critters" in which only one chapter, or about 20 per cent of the text, is devoted to birds. If you have been searching for reliable information about the wildlife in your shrubs, lawn, garden or even in your house — information about squirrels, raccoons, skunks, rabbits, bats, moles, snakes, frogs, and many other "critters," then City Critters is certainly the book for you.

Students of mine in high school biology classes, when referring to local wildlife, often asked such questions as: "How long will it live? What does it eat? Will it become a nuisance if I feed it? How can I get rid of it safely?" This book answers questions such as these, and many more, in language that is easily understood by everyone who can read. It is a book that can be highly recommended to school and community librarians as a very useful reference book.

Dr. Bird is a scientist and therefore does not give the animals Disney-like characteristics. He treats them with the respect, yes, even the affection that they deserve.

When you read this book you will agree with Craig Tufts, Director of the National Wildlife Federation, Washington, who said "this is the most entertaining and informative book yet about the wildlife with which we share our cities... and occasionally our homes." While the text itself is both entertaining and informative, these qualities are highlighted by the delightful cartoons of artist-naturalist, Sandra Letendre. Many who thumb through this book will buy it for the cartoons alone. They are designed to reinforce the ideas and the themes of the author, and not many illustrators have the artistic ability to do this with the humour that Miss Letendre has incorporated into these. I know that some of my nephews and nieces will certainly be finding "City Critters" under their Christmas tree this year.

**Dorean Estey**

# RESEARCH: Dollars Down, Students Up

**by Professor A.F. MacKenzie**
**Former Associate Dean, Research**

In 1982 an article appeared in the *Macdonald Journal* under my name that stated "research (at Macdonald) was and always has been a high priority activity. In 1982 we have over 300 funded research projects actively in progress, over $3 million per year in research funding, and close to 200 graduate students." After four years, where are we? The number of funded research projects has fallen off, and research income has fallen off in real dollars. The bright spot is that our graduate student enrolment has increased from 200 to over 270 students, a welcome change.

In 1984-85, we received over $3 million for research, slightly less than 1981-82 (Table 1). With the staggering increases in costs our research dollars do not go as far as they did in 1982. We have fewer research projects. In 1985-86 we had funding for approximately 119 projects from the major granting agencies, and an additional 80 or so from contracts, other agencies, or private funds for a total of about 200 research projects. Increased graduate student enrolment may be a result of a job market not as buoyant as it was, with students finding graduate studies an interesting and useful alternative to unemployment. Students are finding that a graduate degree is an important step in a career, valued not only by educational institutions but by industry and governments as well. And there is the challenge of graduate work, a challenge which many students cannot pass up.

Graduate student enrolment has increased in other faculties of agriculture across Canada. But at Macdonald College we still rank third in total enrolment of graduate students, as in 1982. We stand second in the number of students enrolled at the PhD. level, however, indicating our commitment to advanced research. Are we nearing our upper limit as to effective graduate student training given the present faculty organization? If we select four graduate students per staff member as near optimum, we would have an enrolment of about 315 graduate students, an increase of about 40 over our present enrolment. Such an increase, however, would require additional space, equipment, and research funding for support of these new students. However, an enrolment of 315 seems entirely possible. Who would have thought we would have increased from 176 in 1979-80 to 270 in 1984-85, a period of six short years?

Other trends over the past few years include a reduction in academic staff at Macdonald. This may explain in part the reduction in funded projects and the stable level of research funding. However, staff members that remain have an average of 3.5 graduate students (1984-85) compared to an average of slightly over two per faculty member in 1980-81. Thus staff are responsible for more education and training at the graduate level, which they must balance against increases in undergraduate teaching. Our staff are doing more on an individual basis, with fewer real dollars.

But can we continue to increase graduate enrolment with our present staff without considering some changes? An obvious change would be to have more post doctorate fellows to work in partnership with academics. Post docs could help staff in training new graduate students, preparing research applications, publishing research findings, etc. A second change would be to have more teaching assistants in order to free staff for more research activity. However, our undergraduates would certainly be unhappy with less staff contact time. More academic staff? An ideal solution; but is this possible? All these "solutions" require more money, space, equipment, and time. And we all know how easy these are to come by!

The major part of our research funding comes from the federal government: the Natural Sciences and Engineering Research Council, Agriculture Canada, Environment Canada and other federal government agencies and these resources are staying stable, or decreasing slightly. The provincial government funds somewhat less research, and these sources in total seem to be holding stable, but not increasing. For example, our recent increase in research funding from the Ministry of Education was balanced by a disappointing decrease in funding by the Ministry of Agriculture. Is this a trend away from applied research into basic research? If so, the agricultural industry may be forced to move into any applied research gap by providing funds. Unfortunately, industry funding has been anything but constant, ranging from over $510,000 in 1981-82 to $150,000 in 82-83. Industry may have to be persuaded that more stable funding will yield benefits in better information, greater productivity, and an improved bottom line.

International funding has been extremely variable, ranging from over $1.2 million in 1979-80 to a low of $12,000 in 1982-83. However, we are seeing a spectacular return to involvement in Third-World agriculture. The Canadian International Development Agency (CIDA) has funded projects involving agriculture in Peru, the Caribbean, and Egypt. It is becoming increasingly difficult, however, to fund people for these kinds of projects,

*(Continued on page 38)*

**Table 1. Faculty of Agriculture — Research dollars ('000s) and graduate student enrolment.**

| | Research Year | | | |
|---|---|---|---|---|
| **Source** | **81-82** | **82-83** | **83-84** | **84-85** |
| Prov. Govt. | 700.1 | 877.5 | 1,110.2 | 1,038.5 |
| Fed. Govt. | 1,338.6 | 1,078.1 | 1,800.8 | 1,740.2 |
| Industry and other | 510.9 | 149.9 | 469.7 | 206.0 |
| Foreign Research | 767.6 | 12.5 | 57.5 | 167.4 |
| Totals | 3,317.2 | 2,118.0 | 3,438.2 | 3,152.1 |
| **Program** | | | | |
| MSc | 126 | 153 | 194 | 196 |
| PhD | 64 | 73 | 79 | 74 |
| Totals | 190 | 226 | 273 | 270 |

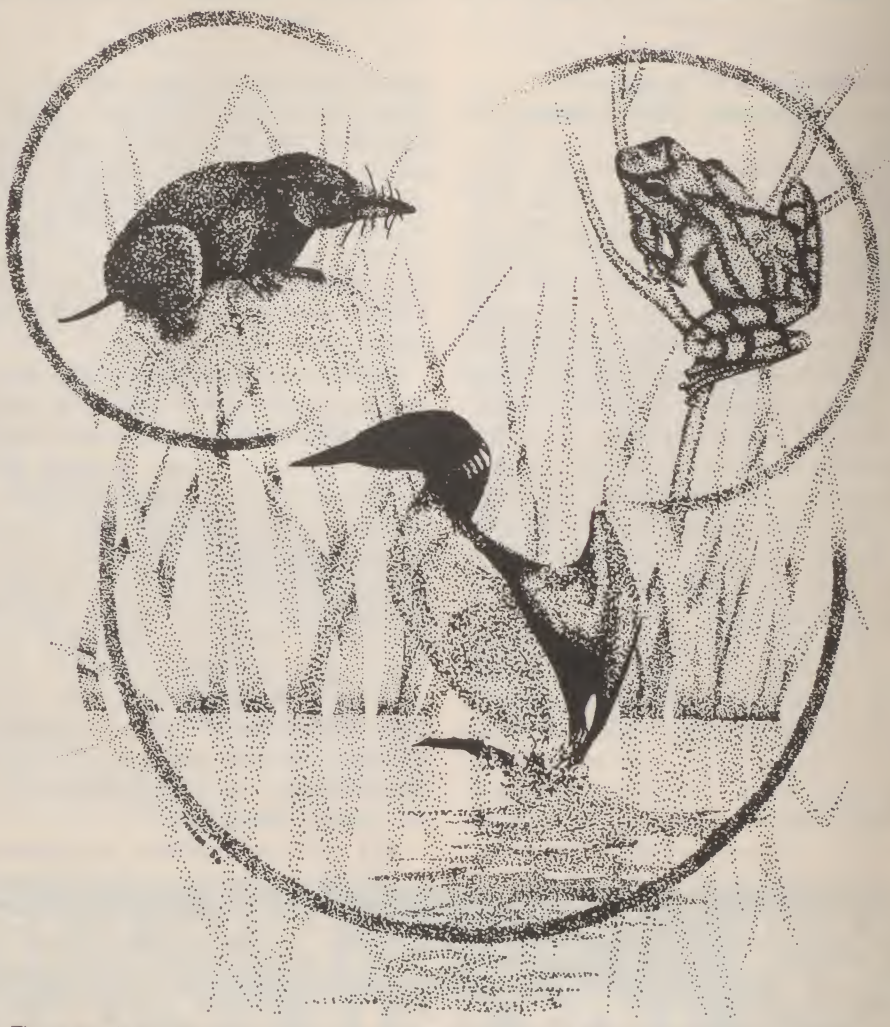
# The 1986 Northeast Wildlife Graduate Conference

**by David Shutler**
**Postgraduate,**
**Wildlife Section, Department of Renewable Resources**

The 1986 Northeast Wildlife Graduate Conference was held at Macdonald College February 7-9. The Conference has traditionally included the following institutions: Acadia, Maine at Orono, Massachusetts, Mount Allison, New Brunswick, New Hampshire, Vermont, and Yale. This is only the third year Macdonald has participated, and the first time we have hosted the conference.

Early on, our committee (Nicholas Gard, Glenna Stewart, Birgit Schultz, Remi Gauthier, Yves Garant, and myself) decided the conference would benefit from the presence of additional institutions (18) in our area. Of these new invitees, only Université Laval and the Montreal campus of McGill came. A total of 37 visitors from the founding schools came, but Mount Allison and Yale did not send representatives.

Friday night, a reception was held for our guests in the Centennial Centre lounge. This was an opportunity to renew old and begin new friendships, to discuss the trek here, the school, and other lofty topics, and to relax and get ready for the two days ahead.



The artwork for the cover of the conference booklet was the work of Stephen Tinker.

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*(Continued from page 37)*

given reduced staff numbers and increased graduate and undergraduate enrolments. Further, foreign research projects may not integrate into ongoing research, and thus such projects may receive a lower priority by staff.

Are new sources of funding available? An example may be the McGill Advancement Program, which has provided the Macdonald College Research Station with a major improvement in farm facilities. A farm originally designed for the early 1900s is being replaced with modern facilities designed for research. Projects that could not be considered due to antique facilities will now be feasible.

In spite of these constraints are we managing to do any speculative, unorthodox, off-the-wall research? Professor Kok in the Department of Agricultural Engineering is looking at the culture of flour beetles on cellulose by-products to provide high quality protein at a minimum cost. Could this system be applied in Third World countries? Will Professor Watson's research in biological herbicides yield yet another safe herbicide? Will Professor van de Voort be able to produce a snack food out of present surplus dairy products? Perhaps Professors Raghavan, Mehuys, and others will be able to engineer solutions to problems of soil compaction. On the answer to these and many other questions may hinge the future profitability of the agricultural industry.

In a future era of freer trade our agricultural industry must compete world-wide by producing quality products at lowest possible costs. This requires research based on excellence. If our experience at Macdonald is typical of research trends in Canada, and it seems that this is the case, we are in danger of losing our competitive advantages because of reduced research inputs. Excellence requires staff, equipment, and resources. Yet in an almost imperceptible way we seem to be losing all three.

In 1982 I wrote "We need to have a stimulating psychological environment and pleasant physical environment in which to carry out our research. Is this possible in an era of shrinking budgets, reduced staff, and increased teaching loads? We must not lose track of our primary goals: research to provide a better basis for the agricultural food industry with minimum impact on our fragile environment." Some things don't change.

Rémi Gauthier, MSc student Mac, Bruce MacWhirter, Acadia, Nicholas Gard, MSc student, Mac, Julie Towers, U.N.B., and Bev, also from U.N.B., get acquainted at the Friday reception.

Alice Cassidy and Liz Date from McGill and Louise Caron, MSc student, Mac, discuss theoretical biology and nosy photographers.

On Saturday morning, Dean Roger Buckland officially welcomed everyone to Macdonald and noted the importance of wildlife as it interfaced with agriculture.

For those of you interested in the content of the presentations, a copy of the conference booklet can be obtained from Hazel M. Clarke, Editor. The beautiful cover gracing the booklet features the artwork of Stephen Tinker, (BSc. (Agr.) '76; MSc. (Agr.) '81), and inside are abstracts of topics presented.

Presentations were limited to 15 minutes with a five-minute question period, all controlled by the chairperson. The format parallels that of a professional conference and provides valuable experience for those intent on scientific careers. While I cannot discuss the merits of all the presentations, I can assure you they were generally of high quality. They ranged from well-organized, clear, and scientific (John Hoeve, Parasitology, McGill; Jean-François Giroux, Laval) to colourful (David K. Person, Vermont) to overpowering and humourous (Kannan Krishnan, Macdonald). Of 21 presentations given, Mac accounted for eight.

On Saturday night, a banquet was held in the Ceilidh. This gave Food Science students Betsy Wells and Anne Delmas (assisted by Tom Hunter), a chance to show off their skills. A sumptuous "repas" of lasagna, cold cuts, salad, etc., was ably consumed by all present. During dessert and coffee, Dr. Robert O. (Bob) Bailey, BSc. (Agr.) '72; MSc. (Agr.) '75, guest speaker, discussed a proposed duck management plan that Mexico, the United States, and Canada hope to finalize shortly. Following the speech, Christene Rafuse set records a 'spinnin', and those of us with any strength left danced. The "weaklings" merely sat around and talked.

On Sunday morning, a few more presentations were given, and then we held a business meeting to discuss the site of next year's conference. Acadia and Maine made bids and, after much discussion, we agreed on Acadia.

As a finale, Dr. David Bird, Director, gave everyone a tour of the Macdonald Raptor Research Centre. The visitors thanked us for the work we had done and bid us farewell. Next stop, Acadia.

**PAPERS PRESENTED**

Winter Ecology of Bald Eagles at Qualicum River Estuary, B.C.
Alice L.E.V. Cassidy, McGill University.

Variation in the Egg Size of the American Kestrel, *Falco sparverius.*
K. Glenna Stewart, Macdonald College.

Can Kleptoparasitism Lead to Predation?
Stephen Flemming, Acadia University

Mating and Spacing Systems in Calopterygid Damselfies
Susan Meek, Acadia University

Of Deer and Diets: Gaining Insight into Foraging Behaviour
David T. Brown, Macdonald College

Investigation of Fox Ecology and Interactions with Coyotes in Vermont
Moira A. Ingle, University of Vermont

Home Ranges, Activities and Food Habits of Eastern Coyotes in Vermont
David K. Pearson, University of Vermont

Vagrancy: A Measure of Runway Use in Rodents
Remi Gauthier, Macdonald College

A Hypothesis for the Function of "Tail-Walking" in Lake Sturgeon, *Acipenser fulvescens*
Ron Threader, Macdonald College

Reproductive Ecology of the Painted Turtle (*Chrysemys picta marginata*) in Southwestern Quebec
Elaine Christens, Macdonald College

Parasite-Induced Mortality of Ducks
John Hoeve, McGill University

Fate of Ionic Leads in Japanese Quails
Kannan Krishnan, Macdonald College

Impact of Greater Snow Geese on *Scirpus* marshes of the St. Lawrence Estuary
Jean-Fancois Giroux and Jean Bedard, Université Laval

Selective Foraging of a Nesting Colony of Arctic Tern (*Sterna Paradisaea*) at an Upwelling Area of Machias Seal Island, New Brunswick, Canada
Steven M. Daniel, Acadia University

Growth Rates and Development of the Eastern Bluebird
Birgit Schultz, Macdonald College

Relating the Density of Cavity-Nesting Bird Populations to the Availability of Potential Nest-Sites
Christopher Welsh, University of Vermont

Habitat Heterogeneity and Bird Species Diversity on Burn Sites
Dave Shutler, Macdonald College

Application of the HEP Habitat Layers Model to GIS Technology
R.A. Herbig, University of Vermont

Songbirds and Small Mammals at Herbicide Treated Clearcuts in Maine
David J. Santillo, University of Maine

Autumn Emigration of Spruce Grouse
Julie Towers, University of New Brunswick

Winter-Spring Transition Period for White-Tailed Deer
Scott J. Heim, University of New Hampshire

# newsmakers on campus

## NEW ASSOCIATE DEANS

As of June 1, 1986, three members of the Macdonald community accepted positions as Associate Deans in the areas of community affairs, research, and student affairs.

**MARCEL J. COUTURE,** is Associate Dean, Community Relations and the new Director of the Diploma in Agriculture Program. Mr. Couture has assumed the Public Relations work previously done by Dr. Jean David, who has stepped down as Associate Dean, Public Relations and Student Affairs. Dr. David will continue teaching in the Department of Plant Science. As Director of the Diploma Program, Mr. Couture, who was Associate Director of the Diploma program, replaces Dr. Norman Lawson who has become McGill Coordinator for the Canada-Egypt-McGill Agricultural Response Program. Mr. Serge Lussier, who was in the Department of Plant Science, has become the new Associate Director.

Marcel Couture is a graduate of Macdonald and of the University of Guelph where he did his Master's degree in Agricultural Economics and Extension Education. He has been on staff at Macdonald for the past 10 years. Mr. Couture has stepped down as Director of Extension, the position now held by Mr. Henry Garino.

**DR. JACQUELINE GEROLS** assumed the duties of Associate Dean, Student Affairs. A graduate of the Universities of Bordeaux and Montreal, Dr. Gerols is an associate professor of French at Macdonald specializing in undergraduate courses in Agriculture and Dietetics and Nutrition. Dr. Gerols has been at Macdonald since 1970.

**ROBIN K. STEWART,** is the new Associate Dean, Research. He takes over from Dr. A.F. MacKenzie who is going on sabbatical leave. A graduate of the University of Glasgow, Dr. Stewart came to the Department of Entomology at Macdonald in 1966. He has been Chairman of the Department since 1975 and will continue his teaching duties in that department.

## Earle W. Crampton Award

Crampton Award recipient Dr. Joyce Beare-Rogers, r, with her husband.

Dr. Agnes Higgins received the Crampton Award posthumously. Receiving it from Dr. Sherman Touchburn, Chairman of the Crampton Award Committee, were her daughter Holly and son Benjamin.

The 1986 recipient of the Earle W. Crampton Award for Distinguished Service in Nutrition was presented to Dr. Joyce Beare-Rogers on April 8, at Macdonald College.

Dr. Beare-Rogers is Chief, Nutrition Research Division, Bureau of Nutritional Sciences, Health and Welfare, Canada. She received the award in recognition of her contributions in research, in administration, and in international activities related to improved nutrition. The title of her Crampton lecture was "Problems in dietary lipids." During her visit to the college she also presented a lecture entitled "Nutrition Research in Health and Welfare."

The late Dr. Agnes Higgins, longtime Director of the Montreal Diet Dispensary, was honoured posthumously for her dedication to improving the nutritional status of low-income pregnant women. One of the speakers honouring Dr. Higgins was Dr. John Moxley, Director of the Dairy Herd Analysis Service who, with Dr. Crampton, had been a colleague of Dr. Higgins for many years. The current Director of the Montreal Diet Dispensary, Marie-Paul Duquette and Professor Mary Mackey of the School of Dietetics and Human Nutrition at Macdonald also spoke, praising the work of Aggie Higgins. Members of her immediate family on hand to receive the award on her behalf were daughter Holly, son-in-law John Jonas, son

Among those attending the Nutrition Day at Macdonald on April 2 were, l to r, Dr. Leroy Phillip and Henry Garino from Macdonald, Dr. B. Laarveld from the University of Saskatchewan, Dr. F.X. Aherne from the University of Alberta, Dr. Louis LaHaye from Cooperative Fédérée, Dr. Roger Buckland, Dean, and Dr. J. Nocek, Cooperative Research Farms, Tully, New York.

Benjamin, and a granddaughter.

The Award is named after the eminent researcher in human and animal nutrition, Dr. Earle W. Crampton, who taught at Macdonald College for 51 years. The Award, which is granted annually, was first presented in 1973 to Dr. Rachel Beaudoin, a nutrition professor at l'Université de Montréal.

## NEW DIRECTOR OF EXTENSION

Henry J. Garino has been named Director of Extension at Macdonald as of June 1st to succeed Marcel Couture. Henry is a BSc '69 and MSc '73 graduate of Macdonald and has been on staff in the Department of Animal Science since 1976. He has been teaching courses in practical nutrition and Beef and Sheep Production, doing research of an applied nature dealing with utilization of low quality roughages and agro-industrial by-products, and he has been very active in extension as well.

This led to his appointment in 1983 as Coordinator of Rural Extension. In this capacity, he has been instrumental in activities related to transferring information such as Farmers Days, Nutrition Day, Management Tips, as well as courses for producers and veterinarians. Henry is the Editor of the Animal Science Research Reports and the author of several technical and popular articles. He enjoys working with his colleagues in research and serving as a link between the Faculty of Agriculture and government, industry, and producers.

Henry firmly believes that Extension is central to the mission of Macdonald College and, as Director, he plans to continue and expand upon the terrific job Marcel and the Extension staff have been doing to date. He also hopes to maintain close relationships with other Mac extension activities such as the Dairy Herd Analysis Service (DHAS) and with those individuals, centres, and departments keen on keeping the public aware of what is happening in agriculture, food, and the environment.

# off campus

## AIC FELLOWS

The Annual Conference of the Agricultural Institute of Canada took place at the University of Saskatchewan in July. Three Macdonald graduates were made AIC Fellows. **FRED G. PROUDFOOT,** BSc (Agr) '43, has been made a Fellow in recognition of his many contributions to the Canadian poultry industry. He joined the Agriculture Canada Research Station in Kentville, N.S., in 1955 and since that time has, through his research and publications, provided technological leadership to the industry which has resulted in increased efficiency and saving of millions of dollars of production costs. He has become an internationally recognized authority on many aspects of poultry production. In 1977 he was awarded the Silver Jubilee Medal for his contribution to the industry and was later granted life membership in the Canadian Society of Animal Science. **DR. GERMAIN-J. BRISSON,** MSc (Agr) '48, director of the Programme de doctorat en nutrition at Université Laval, has also been made a Fellow. This is in recognition of his many contributions in the field of animal nutrition in Canada. As a scientist, teacher, and author of many papers in the field, Dr. Brisson has greatly increased understanding of factors in animal nutrition. Throughout his career, he has served on numerous committees devoted to furthering the science of animal nutrition. He has been widely published on the role of animal fats in the human diet. Dr. Brisson is the recipient of many awards, including the Golden Award of the Canadian Feed Industry Association. **H. RAYMOND SCOVIL,** BSc (Agr), '49, has been made an AIC Fellow in recognition of his contributions to agriculture over a 36-year career with the N.B. Department of Agriculture and Rural Development. He has provided leadership to many agricultural development programs in the province, including the ARDA program and two federal-provincial agricultural development agreements. He served as Deputy Minister of the Department from 1973 to 1983 and since that time he has served as chairman of the N.B. Farm Products Marketing Commission. In 1980 he was made an honorary life member of the Canadian Seed Growers Association.

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**PETER Y. HAMILTON,** BSc (Agr) '47, has taken early retirement from his position as Registrar at the Nova Scotia Agricultural College.

**JOHN MCLEAN,** BSc (Agr) '47, recently elected President of the Nova Scotia Federation of Agriculture, kindly sent a little more news of interest to Journal readers about his very active farm family. After serving in the Army Service Corps and receiving his degree, John returned to the family farm as the fifth generation on that farm at Island East River. "I have been a farmer all these years and still help when home," he wrote. "One could say we are all quite involved in farm and other organizations." Both sons, Neil and Malcolm, who farm with John, are active in local farm organizations. Ellen McLean, John's wife, has just been reelected as World President of

the Associated Country Women of the World, a group numbering some nine million women in well over 60 countries.

Looking back over his career, John McLean received a Nuffield Foundation Travelling Scholarship in 1951 to study agriculture in the U.K. He has been active in a wide range of farm and community organizations, apart from the Federation of Agriculture, including, in 1948, a member of a committee to study milk marketing in N.S., secretary of the N.S. Milk and Cream Producers Association, a member of the N.S. Wool Marketing Board, Director of the N.S. Milk Producers Association, and is, at present, a member of the N.S. Farm Loan Board. He served as Vice-President of the N.S. Federation of Agriculture in 1984 and is now President. Not the first to get involved in farm organizations, John said his father was President of the N.S. Federation in 1952. The President's job is part-time. He works with a Secretary-Manager, an Assistant Secretary Manager who is **DONNA LANGILLE,** BSc (Agr) '74, and a staff of 2-1/2 people.

**DONALD S. COX,** BSc (Agr) '48, swine specialist with the N.S. Department of Agriculture and Marketing retired on April 30, 1986. Don first joined the Department in 1949 as a 4-H Supervisor. After that he served as Ag Rep for Pictou County and in 1959 went to Truro as part of the Livestock Services Branch and thus his involvement in the hog industry. Reporting his retirment, John Miller said, "Don has been a guiding hand in the development of N.S.'s hog industry and for his help we will be forever grateful. We have developed our genetic stock and productivity to be the best in Canada." The Nova Scotia Swine Breeders Association and the Pork Producers Association of Nova Scotia invited all pork producers and industry people to a roast last May in his honour.

**DR. FREEMAN McEWEN,** BSc (Agr) '50, Dean of the Ontario Agricultural College, received an honorary doctor of laws degree from the University of Prince Edward Island at its May convocation ceremony.

**DR. DAVID H. LEES,** BSc (Agr) '65, was appointed, effective August 1, 1986, as President and Chief Executive Officer and to the Board of Directors of The Griffith Laboratories, Limited, David Lees joined Griffith in 1979 as Vice President Technical, becoming Group Vice President in 1982 responsible for Technical, Sales and Marketing functions. In 1985 he became Executive Vice President and Chief Operating Officer. The Griffith Laboratories, Limited is a leading supplier of food ingredients, technology, processing equipment, sterilization and analytical services to the food and related industries in Canada and abroad.

**RALPH MACARTNEY,** BSc (Agr) '66, is Program Manager for the Ontario Ministry of Agriculture and Food's incentives and performance testing programs for sheep, swine, and beef cattle, including ROP and the Red Meat Plan.

**JIM CURRIE,** Dip 70, BSc (Agr) '80, has accepted a two-year assignment with CUSO to work with the Minister of Agriculture in Port Vila, Vanuatu (formerly the New Hebrides), as an agricultural liaison officer. Though based in Port Vila, Jim will be visiting some of the 70 islands of this South Pacific country, gathering information and working it up into pamphlets, newsletters, and press releases. The principal agricultural crops include coconuts, coffee, cocoa, and beef.

**DONALD DUNN,** BSc (Agr) '71, Director of the Ontario Ministry of Agriculture and Food's Foodland Preservation Branch, has been chairing a Right-to-Farm advisory committee which was set up in February. The committee has held public hearings right across the province and received numerous writ-

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**BOB HANES BSc (Agr) '53**

Bob Hanes recently retired from General Foods where he had worked for 32 years, 23 years being spent at the Lasalle plant. "I was plant manager until 1976," Bob Hanes said in a letter recently, "then I moved to the head office in Toronto to industrial sales and finally to contract manufacturing." He said that he knows a number of Mac graduates at General Foods: "At any one time during my stay there were 5 to 10 grads in operations, sales, research, or purchasing."

Bob Hanes was born in Truro, N.S. where he met NSAC students when still at high school.

"I have known people from NSAC and Macdonald for a great number of years. My General Foods supervisor at Lasalle was a grad of '39. Then in my early years after graduation I lived in Ste. Annes and some of the Class of 55-56 used to babysit — Joe MacNeil (see **NEWSMAKERS,** *Macdonald Journal,* February, 1986) was one of them." Bob Hanes still keeps in touch with Mac grads. "I've been to every five-year reunion. The last one was in 1983, and as long as I am able, I'll be back!"

From his years of experience, Bob Hanes suggests to new graduates that the most important aspect in industry is the ability to get along with people and to be able to manage people. This was not taught at Mac when he was here; it is something you acquire through seminars and on-the-job training. "College didn't train you for a specific career — except doctors and dentists and similar professionals — but with a college degree you were in a position to get a job and show what you could accomplish. You were given a position in a company, and it was up to you to either sink or swim."

Having been with General Foods we asked him for a thought or two on foods of the future. "There will be more packaging of individual servings unless large families make a come back," Bob Hanes wrote. "At one time when only 10 per cent of women were in the work force, it was accepted that meal preparation would take time. Today, with more than 50 per cent of women in the work force, individual serving and convenience foods are the order of the day. Singles, small families, plus an ageing population push food processing in that direction. Nutrition and shelf life also are change agents. With people eating two thirds of their meals away from home, the food industry has a difficult time keeping pace. The food industry still needs chemists, microbiologists, home economists, and managers so there are still jobs for Mac grads."

Bob Hanes enjoyed his 32 years with General Foods. He is looking forward to a job a few days a week. He enjoyed a winter of skiing and when he wrote "golf is just around the corner." Bob Hanes enjoyed some of the recent Journals. "I counted 17 names from the past, some good friends among them," he said.

ten submissions. Over 100 presentations have been made during the hearings. We quote from *OMAF NEWS,* May 1986:

" 'Farmers feel they need greater protection to carry out normal farming practices without the threat of nuisance complaints,' says Donald Dunn. 'However, the committee found that, without exception, farmers and their organizations are not asking for the right to pollute. Farmers support corrective action being taken in situation where a farm practice is causing environmental problems.

" 'Farmers want protection from nuisance suits,' says Donald Dunn. 'However, we must recognize that legal action against a person for a nuisance is permitted under common law.'

"Through a survey in OMAF News, the hearings and letters received, farmers told the committee that there are problems. The most common ones cited by farmers were complaints of farm odours, maintenance of line fences, trespassing, and stray dogs.

" 'The hearings have helped to confirm that any density of rural residential lots can present problems and conflicts with neighbouring farm operations,' says Mr. Dunn. 'But despite current and potential problems, farmers still have mixed viewpoints on the granting of severances for farm-related residential purposes. Tens of thousands of rural residential lots have been severed from farms over the years and this has jeopardized the farmers' ability to carry on normal farm practices as well as to fragment the land base acre by acre,' he adds.

"The committee also found a lack of understanding or even awareness of existing policies and legislation that govern farming practices, such as the Environmental Protection Act. There are about 20 different acts which already provide various forms of protection to farmers such as the Weed Control Act, Line Fences Act, and Trespass of Property Act.

" 'If we determine that there is a need or role for right-to-farm legislation, it is essential that such legislation be complementary to or compatible with the Environmental Protection Act and other existing legislation,' says Don Dunn."

Next, the committee was to study right-to-farm legislation in other provinces and the United States, summarize its findings, develop options, and make recommendations to the minister." One recommendation that the committee feels ready to make is for more education of urban residents contemplating a move to the country.

" 'A phamplet that describes farm practices and outlines policies and acts could be distributed through real estate offices and other avenues to tell people what to expect,' says Don Dunn. 'It would also be useful for farmers who aren't now aware of the protection current legislation affords them.' "

**CHARLES COLES,** BSc (Agr) '72, Agricultural Representative with the Charlottetown District Agricultural Office has been named to the P.E.I. Farm Debt Review Board.

To **COLLEEN,** BSc (Agr) '72 and **HARRY YOUNIE,** BSc (Agr) '72, of Morrell, P.E.I., a daughter Martha Ann, on June 7, a sister for Grace, Kenneth, and Donald.

**RON PARKER,** BSc (Agr) '74 has been appointed dairy cattle specialist at the Ontario Ministry of Agriculture and Food office in Brighton. Ron, who worked for the Ministry as a dairy contact in Middlesex for the past two years, will have provincial responsibility for dairy young stock management in his new position. In addition he will be working in the areas of dairy cattle nutrition as well as breeding and management of the dairy herd. He will be available for consultation with farmers, ministry staff, and agribusiness people.

**C. GLENN E. DOWNING,** DSc (Hons) '76, former Director of the Agricultural Engineering Research Branch, Agriculture Canada, now retired, received the 1986 John Deere Medal from the American Society of Agricultural Engineers (ASAE), during the Society's summer meeting, June 29-July 2, California Polytechnic State University, San Luis Obispo. Presented annually since 1983, the medal is awarded "for distinguished achievement in the application of science and art to the soil." He is the first Canadian to receive this major agricultural engineering award.

**CHRISTOPHER WOOD,** BSc (Agr) '77, is an industrial hygienist with Canadian National Railways and is responsible for the health and safety programs for the CNR and VIA Rail Canada across Ontario.

**MARC DAVID,** BSc(Agr) '78 has been appointed production manager, hospital pharmaceuticals, for Abbott Laboratories Ltd.

**ANDRE VIRLY,** BSc(Agr) '78, is spending a leave of absence from the Department of Plant Science at Mac to visit the badlands of southern Saskatchewan and Alberta. He is building a portfolio of photographs and plans to work on a book and magazine articles dealing with people of that area. He also plans to visit the interior of B.C., where, among other pursuits in the audio visual/media area, he will photograph an Indian wedding.

**FRANCINE SIMARD,** BSc (FSc) '80, who opened a nutrition consultancy office four years ago — the Centre de nutrition Multimodal — now has 10 employees.

**PETER,** Dip 80 and **CHARLOTTE GRIFFITH,** BSc (FSc) '83, again proud parents: a son Kyle William born April 8, 1986, a brother for Erin and Anne.

## '86 GRADS

Thanks to some of the students themselves, their friends, and the staff, we are particularly pleased to learn of the new careers for several of this year's graduating class. As we were going to press we learned that 21 of 25 Dietetics grads either have jobs or are going on to graduate studies. Eight of them are working in hospitals in the Montreal region, in clinical nutrition or foods service systems management, etc. Food Science, Agriculture, and Diploma students are doing well as can be seen by the following:

**DAVID BAHLER,** Dip '86, is now working in a "dairy producer syndicate" in the Laurentians as a herdsman. His function is to help 13 dairy farmers in the day-to-day operations of a dairy farm.

**ROBERT BERKVENS,** BSc (Agr) '86, formerly of Antigonish, N.S., is a salesman for Nutrite fertilizer in Chesterfield, Ont.

Three Animal Science students at the Macdonald Nutrition Day, l to r, Pascal De Henau, MSc (Agr) '86, is technical representative, Animal Health Division of Boeringer Ingelheim (Canada) Ltd. for eastern Canada. Hélène Leclerc will obtain her MSc at Fall Convocation and has accepted a position with Dayco Ltd. of Stratford, Ont. Dr. Mary McNiven, a Research Associate in Animal Science, has been working with Dean Buckland on poultry semen physiology. Mary is moving to Prince Edward Island to take up a position of Nutritionist in the new Faculty of Veterinary Medicine.

**DALE BURNS,** BSc(Agr) '86, is working towards his Master's degree in Plant Breeding at the University of Manitoba.

**ANNE DELMAS,** BSc (FSc) '86 has accepted a position with Canada Packers in Toronto as a quality assurance chemist in the dairy division.

**PAMELA FAWCETT,** BSc (FSc) '86, returned from Frobisher Bay in May; worked with the Dietetics Stage at Mac for May-June, and left for James Bay in July. Her northern work is with the Inuit and Cree people through health units

**THERESA GREENE,** BSc (Agr) '86, has accepted a position with Dussault Agri-Services Inc. in Ste-Barbe, Que. Theresa's territory will include farms around the Ormstown-Huntingdon area.

**JOHN HOSKIN,** BSc (Agr) '86, has a position with Master Feeds in London, Ont.

**SCOTT KIRBY,** Dip '86, is working at Shur-Gain Research Farm in Maple, Ont. He is involved mainly in the dairy unit.

**NATALIE LEVINE,** BSc (FSc) '86, and **RENA POPIELNIK,** BSc (FSc) '86, have formed a partnership in a private practice near Macdonald in the West Island.

**SANDY MACQUARRIE,** BSc (Agr) '86 is now employed with the Prince Edward Island Soils and Crops Association. He is working on a three-year project studying alfalfa.

**STEPHANE SANSCARTIER,** BSc (Agr) '86, will be working on his Master's degree at the University of Alberta.

**SUZAN SMITH,** BSc (Agr) '86, is working with Canada Packers in animal health in Toronto.

**CHRISTIANE VETTERLI,** BSc (FSc) '86, is the director of dietary services at a nursing home in Ontario.

# deceased

**J.G. CARL FRASER,** BSA '16, at Niagara-on-the-Lake, Ont, on April 24, 1986.

**DOUGLAS NESS,** Dip 23, Dip 27, at Ormstown, Que., on July 7, 1986.

**J. NORMAN BIRD,** MSA '29, at Georgetown, Ont., on February 17, 1986.

**Dr. GORDON C. ASHTON,** MSc '39, of Guelph, Ont. No date given.

**LOUIS M. BEZEAU,** MSc (Agr) '41, of Kelowna, B.C. No date given.

**LIYEW AYALEW,** MSc '69, of Montreal, Que. No date given.

**ARLENE (MURPHY) BONNELL,** BSc (FSc) '75, at Ste. Anne de Bellevue, Que., on March 24, 1986.

**G. GWENDOLYN TAYLOR,** BHS '25, at Toronto, Ont., on March 29, 1986. Miss Taylor interned at John Hopkins Hospital in Baltimore and did her graduate work at Michigan State University. Miss Taylor was a charter member of the Canadian Dietetic Association. She was assistant dietitian at the Montreal General from 1926 to 1930, chief dietitian at a hospital in New Orleans from 1930 to 1933, worked in Toronto from then until 1939 when she came on staff in the School of Household Science at Macdonald. Though she was at the School until 1944, she had a leave of absence to enlist in the CWAC during the war, and she helped set up food services at Dorval and various army camps before becoming nutrition advisor for Canadian Army Hospitals. She was discharged with the rank of Major and returned to the School for a short time. She was offered the position of Director of Food Services at the University of Rochester Medical Centre where she worked until her retirement in 1970. She returned to Toronto to live in 1980.

**DR. ROBERT HADDON COMMOM** at Ste. Anne de Bellevue on June 27, 1986. A memorial service was held for Dr. Common on August 10th. Persons wishing to contribute to a memorial to Dr. Common may send a donation to the Robert Haddon Common Fund. The annual income from this fund provides a Prize to the student who obtains the highest average in the final year of the Agricultural Chemistry Major. This is an encouragement and assistance for the student to proceed to Master of Science degree studies.

Cheques should be made payable to "R.H. Common Memorial Fund Macdonald College" and sent to the Registrar, Macdonald College, Que. H9X 1C0. Receipts will be provided for income tax purposes.

# IN MEMORIAM
## Robert Haddon Common
## 1907-1986

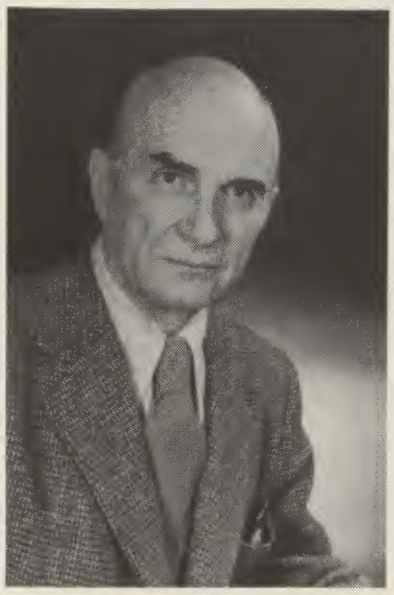
The passing of Robert Haddon Common occurred on June 27, 1986.

Born at Larne, Northern Ireland, on February 25, 1907, Dr. Common and his family arrived in Canada on September 24, 1947. In that year, McGill Principal F. Cyrill James, on a trip to London, hired him to teach at Macdonald College. Prior to his arrival in Canada, he was a scientific officer for the Ministry of Agriculture for Northern Ireland and a lecturer at the Queen's University of Belfast where he had received his B.Sc., B.Agr. and M.Agr. degrees. As an external student of the University of London, he received a B.Sc. in Chemistry, Zoology and Botany and a Ph.D in Biochemistry. In 1947 he was appointed Professor of Agricultural Chemistry and Chairman of the Department, Macdonald College, where he remained for 25 years with retirement in 1972. He continued on a part-time appointment until 1975.

He brought with him from Ireland, and enlarged greatly, a rare breadth of knowledge and expertise in analytical chemistry, nutrition, biochemistry and endocrinology. In Northern Ireland, he was engaged in research on the chemistry of grass ensilage, the digestibility and nutritional value of hays and by-products of flax and grass, field fertilizer trials and an early interest in soil science studies which led to publication of one of the first, if not the first, description of a podsol in Ireland.

Upon his arrival at Macdonald College, he worked on the problem of the nature of toxic materials formed when unsaturated oils are heated in an inert atmosphere at polymerization temperatures. This work although challenged at the time of publication was later completely confirmed and extended in industrial laboratories. In later years he turned his attention to avian biochemistry and a major portion of his published work relates to his pioneering studies on the nature and metabolism of the steroid estrogens of the hen. This work, which covered a period of some 20 years, has been recognized internationally as the most significant and exhaustive study on the subject.

A host of undergraduate students will attest to his keen interest in them and to the knowledge gained not only in biochemistry and food chemistry through his teaching but to the incidental impartment of his wealth of knowledge on almost any subject. Forty-nine graduate students came under his direction while at Macdonald College and it is safe to say that his impact on their scientific and intellectual development was profound, and



many life-long friendships were made in the process. His exceptional ability in clear and elegant writing was shared generously with his students.

For all of this he received many deserved honours including a D.Sc. degree, University of London, Fellow of the Royal Institute of Chemistry, Fellow of the Agricultural Institute of Canada, Fellow of the Royal Society of Canada and a recipient of the Confederation Medal. In 1974 he was honoured by his alma mater, the Queen's University of Belfast, with an Honorary LL.D. degree. In 1975 he was honoured by the Nutrition Society of Canada as the recipient of the E.W. McHenry Award and by McGill University with an Emeritus Professorship.

The indomitable spirit of this remarkable Irishman was not only displayed in scientific, literary, and cultural pursuits but also on the rugby field, on the ascent of Switzerland's Wendenstock and on Mont Tremblant's Sissy Schuss on skies.

For many students and colleagues, the decades of the 50s and 60s will be remembered as the "golden years at Macdonald" — a significant period in Dr. Common's life when he developed an infectious enthusiasm for and devotion to the institution whose motto is "Mastery for Service." Those days in the "bawdy basement" of the Chemistry Building were rich and fulfilling and the late night discussions with Common were not restricted to research concerns and may have included ballet, world social and political issues, Chinese culture, politics and the language, James Joyce and T.S. Eliot. Those were the days when students were exposed to Common's fourth law of Thermodynamics, "Work does not do itself" and his tenth Beatitude "Blessed are they who expect nothing for they shall not be disappointed."

His many colleagues and friends may possibly see in the life of Robert Haddon Common what one writer observed about Bloom in Joyce's *Ulysses,* "He is by no means a Babbit. Our contemporary notion of the average man, l'homme moyen sensuel, is a notion conditioned by Sinclair Lewis and not by Joyce. It is not a notion which is congenial in Ireland. Irishmen are gifted with more eccentricities than Americans and Englishmen. To be average in Ireland is to be eccentric. Joyce knew this and moreover he believed that every human soul was unique."

Dr. Common is survived by Renate, his wife and devoted partner for 51 years, four daughters — Edith, Christene, Sonja and Jennifer — and two sons — Robert and Andrew.

During an interview with the *Macdonald Journal* in 1983, Dr. Common picked up a favourite book and started to read what he referred to as "one of the most wonderful bits of poetry that was ever written." It was from "Little Gidding," the last of T.S. Eliot's *Four Quartets* and he read:

He left me, with a kind of valediction,
And faded on the blowing of the horn.

**H.F. MacRae**
**Principal**
**Nova Scotia Agricultural College**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